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Applying Digital Tools in the Latin Classroom

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Report

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To the memory of my grandmother, Elena.

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Abstract

Applying Digital Tools in the Latin Classroom

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The study of Latin is facing a crisis in the form of declining class enrollment. This report examines research in second language acquisition to identify potential reasons for such declines and propose fruitful avenues for Latinists to meet the challenges facing their classrooms. Latin's history and continued perception as an elitist discipline merits a new and contrasting emphasis on student identity and motivation. I show that, among other familiar challenges, Latinists must acknowledge that there is a digital divide among students; discrepancies in both access to and usage of online and digital tools creates disadvantages for some students in a globalized economic market. In light of the benefits of blending digital and in person instruction, and informed by Stephen Krashen's influential 'input hypothesis', I present a catalogue of online tools that can be integrated into a Latin class and provide suggestions for using these resources in a classroom that utilizes Comprehensible Input.

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Chapter One: Memory, Cognition, and Language Learning

Introduction

This chapter discusses predominant theories of second language acquisition (SLA) and considers challenges that students may face when learning a second language. First, I review existing theories of SLA in order to examine the current views on how a second language is acquired and what factors lead to a student's success. Issues that arise in the first language (L1) learning process can sometimes carry over to the second language (L2) learning process. Next, I review a brief history of Latin instruction at the secondary and university levels. I consider major issues pertaining to the instruction of the language such as the role of phonological processing. Finally, I address the need for a universally designed Latin classroom. Because struggles such as poor memory retention and weak phonemic awareness exist on a spectrum, an exploration of learning styles and strategies can assist in determining where students' natural strengths and weaknesses may arise. The most dramatic extremes are often connected with learning disabilities such as dyslexia. Building awareness of the struggles experienced by students in the Latin classroom can lead to identifying strategies to proactively create a universally-designed classroom that can serve all members of the classroom. The following chapters explore digital methods that are designed to address these issues by promoting stronger retention and phonological processing while appealing to the individual differences of language learners.

A Brief and Comparative Overview of Theories of Second Language Acquisition

Examination of all theories and a myriad of teaching strategies that derive from the varying strategies is necessary in order to design a broad and effective language course. Structure, reinforcement, and rewards are at the forefront of behaviorist theories that influenced Latin instruction in the early 1960s. For instance, the Contrastive Analysis Hypothesis (CAH), developed by Robert Lado in 1957, is a first language theory that emphasizes the relationship between the speaker's first language (L1) and a target language (L2). Lado (1957) argues that language learners will have the experience that "those elements that are similar to his native language will be simple for him… and those elements that are different will be difficult" (p. 2). A focal point of concentration for teachers, then, should be to anticipate challenges based on differences between L1 and L2 while emphasizing similarities.

The psychologist B.F. Skinner is also associated with the CAH and his influential behavioral learning theories also attend to the extent to which L1 can interfere with the learning of L2 because of differences in grammar. According to Skinner, mastery of a language comes as a result of many reinforced behaviors. The learner changes their behavior from only speaking in L1 to learning and accurately communicating in L2. Skinner (1953) asserts: "The strengthening of behavior which results from reinforcement is appropriately called 'conditioning'. In operant conditioning we 'strengthen' an operant in the sense of making a response more probable or, in actual fact, more frequent" (p. 65). Reinforcing proper pronunciation and grammar, for instance, may help form a habit of a student properly performing the behavior of speaking, reading or understanding L2. The

goal of these theories is largely to reinforce good behaviors (like proper language usage) and to prevent fossilization of errors in language usage.

Skinner's ideas influenced Charles Fries' audio-lingual method of language teaching which focuses on oral language in the classroom: "In learning a new language, ...the chief problem is not at first that of learning vocabulary items. It is, first, the mastery of the sound system... It is, second, the mastery of the features of arrangement that constitute the structure of the language" (Fries, 1945, p. 3). Fries believed that oral drills that train basic patterns of the language and dialogue were the best methods of producing activities that reinforce appropriate verbal behavior. Repetition and practice result in accurate and fluid communication in the target language. The classroom is therefore structured around students repeating information given by the instructor. This teacher-centered approach stresses reciting practice sentences and grammatical drills and therefore is not simulating natural language.

Noam Chomsky (1966) criticized the behavioralist and structuralist approaches to language learning, stating that "language is not a habit structure" (p. 153). Because "linguistic behavior characteristically involves innovation, formation of new sentences and patterns in accordance with the rules of great abstractness and intricacy," we must learn language in another way (p. 153). Theories like the Behavioral Psychology theory contrast with the Universal Grammar Theory (UGT) attached to Chomsky because this theory suggests that babies are born with a language acquisition device that helps to guide their acquisition of their first language. This theory is associated with Chomsky's (1965) theory of Language Universals and Marked Features:

> It seems plain that language acquisition is based on the child's discovery of what from a formal point of view is a deep and abstract theory – a generative grammar of his language – many of the concepts and principles of which are only remotely related to experience by long and intricate chains of unconscious quasi-inferential steps. A consideration of the character of the grammar that is acquired, the degenerate quality and narrowly limited extent of the available data, the striking uniformity of the resulting grammars, and their independence of intelligence, motivation, and emotional state, over wide ranges of variation, leave little hope that much of the structure of the language can be learned by an organism initially uninformed as to its general character (p. 58).

It is the language acquisition device that enables language learning which can be triggered in the classroom by social interaction in the target language. The idea of a universal grammar encoded in an infant's brain contrasts with the notion that language acquisition relies on a relationship between L1 and L2 just as First Language theories do, but because the Universal Grammar Theory suggests that there are shared patterns between nearly all spoken languages, there is less emphasis on the direct relationship between L1 and L2 in this theory.

UGT's parameter setting of L1 is similar to the First Language theories in that L1 does still have a bearing on a student's pre-established parameters when beginning to learn L2. As children grow and learn their first language, they set their language parameters to a particular language environment. When a student begins learning L2, they begin to learn with a set of parameters that have been selected for their first language (Horwitz, 2013, p. 28). Learning L2 involves resetting parameters, which does reflect the concern that First Language theories have regarding the ease of transitioning from communicating with one set of vocabulary and grammatical rules (those of L1) to those

of another language (L2). However, reinforcement and practice are highlighted in First Language theories whereas a follower of Universal Grammar Theory may focus on the shared language universals between L1 and L2 or may attend to marked features between L1 and L2 that represent differences from language universals.

Attention theories, in contrast, emphasize the fact that language learning is learning just like any other complex task. Language learning in this view is not unique and could occur by the same means that one would learn math, science, or history. The meaningful learning theory of David Ausbel suggests that there is a distinction between meaningful learning and rote learning. Because meaningful learning must connect to existing knowledge, it can be suggested that it is not merely enough to have a behavior reinforced without understanding complex material. Ausbel (1960) argues that "advance organizers in the teaching of meaningful verbal material could lead to more effective retention" (p. 271). In this view, "advance organizers" are tools used by instructors to introduce language concepts and to create a bridge between pre-existing concepts and new information. By building from information that learners already have, attention theorists suggest that learning can most effectively take place.

Other attention theories of SLA have been postulated by thinkers such as Barry McLaughlin, who established the approach called Information Processing, which asks how learners may gain automatic control of a language and focuses on the attention level of the learner. Controlled processing forces learners to pay focal attention to the grammar and vocabulary of L2. Practice makes the control over L2 more automatic. McLaughlin (1987) states that automatization of learned language is "a learned response that has been

built up through the consistent mapping of the same input to the same pattern of activation over many trials" (p. 134). As usage of L2 becomes more automatic, it will only need to access the learner's peripheral attention. With time, controlled processing will become automatic processing. Students may need to pay more attention to a new grammatical task when they first learn it, but it will become automatic after a period of practice.

Attention theories differ from UGT in that the latter highlights the mechanism by which humans can process language and the former seems to focus more on internalizing linguistic usage regardless of how well it meshes with parameters set during the acquisition of L1. Attention theories do acknowledge preexisting schema or background knowledge, but they exist in contrast to nativist approaches to language learning. As a result, attention theorists may argue that study habits or pedagogical approaches that work in other courses would be helpful in a language classroom.

Krashen and Comprehensible Input

Stephen Krashen and Tracy Terrell published the influential *The Natural Approach* in 1983 which combined Krashen's theories of second language acquisition with school language learning curriculum. Instructors face a challenge that they call the "Great Paradox of Language Learning": the fact that "language is best taught when it is being used to transmit messages, not when it is explicitly taught for conscious learning" (Krashen and Terrell, 1983, p. 55). Krashen's work focuses on five hypotheses of language acquisition. They are the Acquisition-Learning Hypothesis, the Monitor

Hypothesis, the Natural Order Hypothesis, the Input Hypothesis, and the Affective Filter Hypothesis.

In the Acquisition-Learning Hypothesis, there are two independent systems of developing second language performance: the 'acquired system' and the 'learned system' (Krashen, 1981). The hypothesis stresses the importance of subconscious acquisition over conscious language learning. Krashen (1981) states, "Acquisition requires meaningful interaction in the target language - natural communication - in which speakers are concerned not with the form of their utterances but with the messages they are conveying and understanding" (p. 1). According to this view, the 'learned system' may retain grammatical rules as a result of formal instruction while the 'acquired system' is developed in a process similar to what children experience when they learn their first language. Consequently, the goal of a language instructor is to encourage acquisition over formal learning.

According to the Monitor Hypothesis, "conscious learning is available to the performer as a Monitor" that applies the learner to alter the output of the acquired system (Krashen, 1981, p. 2). The Monitor Hypothesis provides insight into the question of how a language instructor can help students to generate accurate or mostly accurate speech in the target language. For instance, although students may be expected to use accurate grammar in written work, homework, and prepared speech, students should not be expected to apply grammatical rules in oral communication (Krashen and Terrell, 1983, p. 59). The Monitor Hypothesis stresses providing an appropriate amount of time to the performer to generate the language in conversation, the condition that the performer must

be “focused on form” or accuracy and, finally, the performer must know the rules (Krashen, 1981, p. 3). A language user’s monitor plans, edits, and even retroactively corrects speech when these conditions are met. Furthermore, Krashen asserts that the monitor function is used on an individual basis. Introverts and perfectionists are described as “overusers” who use the monitor all the time. There are also “underusers” who do not know or do not care to use conscious knowledge of the language. Krashen argues that an “optimal user” is one who monitors appropriately and uses learning as a supplement to acquisition (Krashen, 1981, p. 4). Each classroom will feature individuals who have monitors that exist on different ends of this user spectrum.

The Natural Order hypothesis suggests that grammatical structures are predictable because they follow a natural order, “the order of acquisition or difficulty order” (Krashen, 1981, p. 6). Drawing from the research findings from scholars such as Brown, 1973; Dulay and Burt, 1974; Andersen, 1976; Kessler and Idar, 1977; and Fabris, 1978, Krashen argues that grammatical morphemes appear to be acquired in natural order independent of factors such as age, the speaker’s first language, and conditions of language exposure (Krashen, 1981).

Krashen’s Input Hypothesis is his theory of language acquisition. Acquisition is the unconscious development of a language as a result of exposure (Horwitz, 2013, p. 31). The Input Hypothesis further emphasizes Krashen’s distinction between language learning and language acquisition. In language instruction, Krashen prioritizes the acquisition of language through the direct contact with the target language over a curriculum that focuses on learning through vocabulary and grammar drills. In Krashen’s

(1981) view, an ideal learning environment would offer input that is comprehensible to the language learner but is just a little beyond the student's proficiency level:

> ...it can be hypothesized that intake is first of all input that is understood. Indeed, comprehension may be at the heart of the language acquisition process: perhaps we acquire by understanding language that is "a little beyond" our current level of competence. This is done with the aid of extra-linguistic context or our knowledge of the world. (In more formal terms if an acquirer is at stage i in acquisition of syntax, he can progress to stage i + 1 by understanding input at that level of complexity.) It follows from this that optimal input includes structures that are "just beyond" the acquirer's current level of competence, and that it tends to get progressively more complex (p. 102-103).

Designing a course based on grammatical drills focuses on the form of the language and ignores "communicative intent" (Krashen, 1981, p. 103). Rather than attending to these features of the language, communication must be meaningful to students. Krashen and Terrell (1983) assert that there is a "requirement" that input be interesting in the classroom because it prompts students to contribute (p. 60).

In Krashen's view, language learning is fundamentally different from learning other types of subjects. Unlike the attention theorists' conception of implicit linguistic knowledge, the Input Hypothesis focuses on experience over practice with a language. The Input Hypothesis states that language proficiency can only come as a result of language acquisition. Direct contact with listening and reading are ideal tools to provide input for students. In order for acquisition to take place, a language learner must receive input with context that are meaningful intake if they are understood by students, are an appropriate level for the learner, and are "natural" (Krashen, 1981, p. 108). While Krashen (1981) acknowledges the difficulty of providing meaningful intake on all topics

that must be covered in a language classroom, the emphasis, he argues, should still be on creating input that is comprehensible to students (p. 109). The suggestion that the input should also be slightly greater than the level of the students (i + 1) is another challenge. No two students are on the same level, so comprehensible input that is designed to promote acquisition must be broad enough to serve the different levels of proficiency within the individual classroom.

Krashen's fifth and final hypothesis is the Affective Filter Hypothesis. Compared to the other theories discussed thus far, Krashen's theory uniquely details reasons why different students' circumstances beyond their L1 could affect their ability to make input become in-take (Krashen, 1981, p. 22). The affective filter is comprised of the learner's feelings towards language learning. Lowering the affective filter allows students to receive input. Learners with high affective filters tend to have low motivation, high anxiety, or negative feelings towards the target language. These students may not be open to target language listening and reading activities, and may not receive input. Although Krashen and Terrell (1983) state that the affective filter may never truly be eliminated, the lowering of the affective filter is a goal of the Natural Approach (p. 59). The affective filter is lowered by providing classes that have no demand for early speech, that give students the choice in when they begin speaking in L2 and emphasizes the importance of building one skill at a time, and reward students for all speech without direct correction of errors (Krashen and Terrel, 1983, p. 59).

Learners with low affective filters tend to have high motivation, low anxiety, and feel positively towards the target language. Other theories so far have discussed the

challenges of two students with different L1s trying to learn the same L2 or of two learners who are trying to acquire a language at different ages, but have not focused as much on more personalized factors such as motivation and language anxiety.

Conversation theories are another type of Experience Theory. This theory stresses the idea of conversational speech as a catalyst for language learning. Gordon Pask (1976), an instructional psychologist, contributed to the development of conversational theories. Students learn via the conscious act of conversation. Pask (1976) explains:

> Psychological phenomena, especially those involved in learning and education, stem from or are related to states of *consciousness*. Using the argument which relates the information available about conscious processes to the type of experimental situation, we maintain that the basic unit of psychological /educational observation is a conversation. In order to test hypotheses and explicate the conversational transactions, it is necessary to invoke various tools and explanatory constructs. These are coherent enough to count when interlocked as a theory, and this theory was dubbed *conversation theory* (p. 3).

Throughout this process, learners will be given feedback in order to assist the learner in making corrections to his or her speaking. In order to structure these conversations, a more proficient speaker will scaffold the conversation to help more inexperienced speakers participate (Horwitz, 2013, p. 33). During these scaffolded conversations, participants will negotiate meaning in order to come to an agreement about the subject of their conversation.

This seems similar in nature to the reinforcement that behaviorists focus on. During the course of the scaffolded conversation, the more proficient speaker will provide feedback to reinforce appropriate language and ultimately offer the correct vocabulary or pronunciation. Conversation theories suggest that a learner's linguistic

development can be helped to develop as negotiations of meaning point out connections between words and phrases and their meanings.

Social Theories differ from the other theories because they are concerned with the multiple perspectives of the L2 learner, the learner's L1 group, and the L2 group. First Language, Attention, and Experience Theories focus on the individual learning. Social Theories examine language learning through larger sociological, socio-economic and political contexts that may delve into matters of motivation of students or the resources of instructors.

John Schumann's (1978) Social Distance Hypothesis, or Acculturation Theory, is similar to Krashen's Input Hypothesis in that it views individual language learners in terms of their openness to language learning. In Krashen's theory, this was described as having a low affective filter. In the Social Distance Hypothesis, low psychological distance describes the same or similar qualities such as high motivation or flexibility. Psychological distance is not the only factor in fostering good learning experiences. Social distance, which pertains to the relationship between the learning and target group, can be high or low. High social distance would indicate that there are social, cultural, or political barriers to face in the learning process. For instance, learners with relatively high culture shock, or tension or anxiety as a result of exposure to a different culture, may have a high social distance (Horwitz, 2013, p. 35). Social and psychological distance affect the process of acculturation, which is the process of becoming a functioning member of the culture to which L2 belongs. Schumann (1975) suggests that "... the natural factors that induce ego flexibility and lower inhibitions (assumed to relate to

increased empathy) are those conditions which make the learner less anxious, make him feel accepted and make him form positive identifications with speakers of the target language" (p. 227). Rather than focusing on communicating in the target language like UGT, First Language, Attention and Experience theories, this theory focuses on creating awareness of the connection between culture and language.

Many SLA theories have tried to tackle the question of whether or not there is a critical period in language acquisition. The Critical Period Hypothesis for language learning suggests that there may be a period after which children experience decreased language learning ability or even lose it altogether. This theory supposedly accounts for the relative ease in acquisition that children learning their first language experience. During this critical period, young people are able to absorb information about language more quickly and therefore have greater learning potential than adults. This relies on Lenneberg's theory that the human brain remains relatively flexible until brain lateralization occurs during puberty.

The Contrastive Analysis Hypothesis (CAH), a First language Theory, held that child and adult learners with the same L1 and L2 have the same opportunity for positive transference and share the same sources of interference (Horwitz, 2013, p. 38). However, children may need fewer practice opportunities and less reinforcement as a result of less well-established L1 habits because of their young age. Attention Theory, on the other hand, suggests that children may be more successful language learners because they have less complex language tasks, have fewer demands on their attention, and have more meaningful occasions for practice. Alternatively, Experience Theories suggest that

children receive more comprehensible input and have lower affective filters. Conversation Theorists suggest that children have access to more and better conversations when the have been offered scaffolding more widely in the classroom. This approach focuses on extrinsic factors whereas other theories, such as UGL, focus on intrinsic factors within the L2 learner. Social Theories also maintain that children have more opportunities for acculturation and are more accepted within certain communities than adult learners. All of these theories ask how language learning changes as the learner ages and many focus on the idea that children may have more opportunities in one way or another to engage with language. Social theory takes a human's most personal and unique aspects and asks how those factors relate to successful L2 learning.

Latin brings unique challenges to the language instructor hoping to take advantage of the insight into best practices provided by theories of second language acquisition. A behaviorist may have concerns about reinforcing knowledge of the various word endings. Because Latin is a language that is predominantly read with a complex structure, approaches like Conversation Theory are difficult (although not impossible) to execute in the novice classroom. A social theorist may have concerns about how to destigmatize Latin and relieve students of any anxieties about Latin's reputation as a cold, dead language of exclusion that upholds and reinforces social hierarchies. Attention theorists may consider how to manage information by creating tasks of varying complexity to encourage oral and written practice.

Learning Latin and Phonological Processing

Prior to the 1960s, Latin course enrollment at the university level benefitted from the requirement that students take Latin at the secondary level. For instance, Moreland (1981) reports that the number of students taking the College Board Latin Achievement Test in 1965 was 20,670. However, by 1970, the number had dropped drastically to 7,460 (p. 3). If nothing else, this trend appears to depict a rapid degeneration in national Latin programs and/or student willingness to continue taking Latin at the secondary or university level once educational requirements to take Latin were lifted. The predominant pedagogical method at this time was described as both an "ivory tower approach" and a "traditional" method of grammar-based instruction "reinforced by language-to-English and English-to-language translation" (Moreland, 1981, p. 1, 6).

The National Center for Education Statistics reports: "In 1886–87, 62 percent of college students were enrolled in classical courses. In 1878, more than 10 percent of those students wishing to enter colleges where entrance examinations were given were rejected only because of their lack of proficiency with the Greek language." (Snyder, 1993, p. 64). In the early 19th century, higher education often began between the ages of 17 and 20 (although one could begin as early as 14) and had a heavy emphasis on classics. The structural changes undergone during the 1960s brought in students with greater variation in their classical background and triggered a change in instruction.

As a result of this, Latin instruction underwent a period of experimentation and reflection throughout the late sixties and the seventies. Texts and linguistics or structuralist-based approaches were developed and instruction began to change. For

instance, pattern practice exercises and inductive methods implemented at the University of Michigan were inspired by the potential impact of applying linguistic theory to language instruction. There was an emphasis on bringing language instruction for ancient languages in closer alignment with the instruction of modern languages, which emphasized aural/oral instruction techniques at the time. Due to the cultural and educational changes of the time, students entering college had differing needs to be addressed such as a lack of prior linguistic training. For instance, self-paced instruction was introduced via Computer Assisted Instruction at the University of Minnesota and without computers at Ohio State University in the mid-seventies. Moreland (1981) describes the shift in Latin instruction:

> Some institutions preferred to deemphasize morphology, syntax, and translation and turned to Oerberg's "Nature Method" or to the *Cambridge Latin Texts,* primarily out of the belief that grammar and syntax in heavy doses were more appropriate to the old aims of writing Latin, but less so to the more contemporary aim of reading Latin. At the other end of the spectrum, in order to provide a mechanism for rapid learning for motivated students with no training in Latin or Greek on the secondary or college level, intensive, total immersion programs were devised… These programs use traditional morphology/syntax/translation approaches and move as rapidly as possible to the reading of real texts (Moreland 1981: 2).

In this assessment, Moreland acknowledges the need to cater to students with both exceptional and developing proficiency levels. Also mentioned are the popular reading-based *Cambridge Latin Texts* and immersion-based "Nature" Method associated with Oerberg. These approaches involve the reading, writing, and translation of texts in Latin, but there is no mention of speaking.

Lafleur (1998) reports that at the undergraduate level of instruction, doctoral students received little to no pedagogical instruction until the late 1970s when there was widespread establishment of instructional development offices on university campuses (p. ix). Having expert knowledge in a subject does not entail having expert knowledge on the manner in which the subject is taught, however, and the change towards more training for graduate students and new assistant professors has picked up since the 1980s, especially after institutions such as the American Philological Association (APA) (in particular, its Committee on Education) and the American Classical League demonstrated increased interest among instructors in striving for excellence in pedagogical methodology. Nor was Latin's dependence on grammar-based approach entirely rehabilitated. A published analysis of student performance in 1988 on the aforementioned Latin Achievement Test reveals that assessment prioritizes strict adherence to Latin grammar over fluidity of translation: "An answer should not be chosen merely because it makes sense in English, but because it represents an accurate translation of the Latin that expresses all the nuances intended in the phrase or sentence" (Duclos, Kays, & Rabiteau, 1988 p. 44).

The five main components of the Latin language are: phonology, semantics, morphology, pragmatics, and syntax (Hill, 2005, p. 1). Phonology describes the sounds of vowels, consonants, syllables and words within a particular language. Semantics pertains to the meaning of words and phrases. Morphology describes the declining of nouns, pronouns, and adjectives as well as the conjugation of verbs. Syntax refers to the word order, grammatical rules, and rules pertaining to tense and mood of the language. Finally, pragmatics describe the necessary rules of the language in order to communicate. In this

view, Latin's difficulty as a language comes as a result of its morphological complexity as well as the grammatical differences between the first language and Latin.

In trying to predict success at language learning, early language theorists suggested that factors such as one's IQ may correlate with aptitude in the classroom. Relying on arguments from researchers such as Richard Sparks (1995), Hill (2005) states that using IQ as a measure of aptitude for foreign language learning has been "discounted" (p. 2). Instead, phonological processing is the "primary and fundamental" source of measuring foreign language aptitude, which is an ability that is entirely separate from the IQ of the student (Hill, 2005, p. 3). In other words, a student's IQ has not been shown to have a strong relationship with their aptitude for language, but other factors such as motivation and previous struggles in learning L1 grammar may be a better indicator.

In Latin learning, phonological processing may be a key factor in determining success. Phonological processing refers to the brain's identification of sounds and its connection of these sounds to meaning. Discriminating among units of sounds in words and phrases or sentences, phonemic awareness, is key to the development of second language acquisition. In addition to this, recalling phonological rules to predict the spelling of new words presented orally are also significant phonological processes. Finally, remembering and repeating words, phrases, and sentences all fall under the umbrella of phonological processing and are considered key to the development of a foreign language by many neurolinguists and psycholinguists (Hill; Crown, and Leach, 2016, p. 140).

Students who possess poor native language reading skills will often carry their struggles to poor reading in a foreign language: "Weak learners cannot perceive accurately, remember correctly, or reproduce adequately strings of sounds they have just heard. They are thus forced to continually re-memorize the information, which more adept learners acquire quickly." (Hill, 2005, p. 3). The neurolinguistic perspective suggests that "native language learning deficits later translate into impairments in FL acquisition" (Arabski and Wojtaszek, 2010, p. 39) which may result in poor listening comprehension, oral expression, reading comprehension, syntax, general knowledge, and verbal memory.

Students in a Latin class with low phonemic awareness may struggle to track the speech of the instructor. These students may also face challenges such as being unable to distinguish among words in Latin phrases or sentences that are spoken out loud, understanding elements of Latin grammar described during instruction, and being unable to follow along with class lessons regardless of their best efforts to focus (Hill *et al*., 2016, p. 141). However, students do not tend to fall neatly into a strong/weak binary in terms of native language proficiency. All students exist on a spectrum with stronger or weaker levels of phonemic awareness. Identifying a student's individual needs may be a more targeted approach than merely assessing whether their L1 phonological processing is strong or weak.

Phonological processing is a component of working memory. When information in temporary storage is converted to long-term memory, one has learned part of the language. Hill (2005) states: "if an individual has poor phonological loop capacity, he/she

can neither store new information accurately nor convert it to long-term memory" (p. 4). As a result, the learner cannot recall or reproduce the information. For instance, as beginning learners memorize case endings for nouns, adjectives, and other word forms, they may struggle to store this information. Latin, according to linguist Grigorenko, falls into the "hard" language category because of morphological complexity and grammatical differences between Latin and English (Hill *et al*., 2016, 147). An instructor mindful of the needs of a Latin classroom for a younger group of students must recognize keys to successful storage of morphological changes and focus on the differences between Latin and English (or another L1). When introducing new information, especially to those who may struggle to process phonemes or morphemes, instructors must be aware of the necessity of reinforcing new information that may be unfamiliar or elusive to novice-level students.

Houston (2014) argues that in the levels-of-processing approach, "the durability of a memory trace is determined by the depth to which it is processed" (p. 335). Semantic Network models of memory involve the storage of semantic, meaningful material. According to this model, knowledge is stored through multiple interconnected associations, relationships, or pathways. The issue of the distinction between long-term versus short-term memory, recall versus recognition, episodic versus semantic memory, automatic versus controlled processing, contextual cues and state-dependent memory are some of the essential issues in memory retention.

If one is interested in serving all students who desire to learn Latin, awareness of the issues of second language acquisition broadly as well as those unique to the target

language is necessary. All of these approaches have benefits and challenges in terms of classroom implementation. The following chapter discusses historical barriers and challenges facing students that can inform how instructors engage with learners, select course materials, and create an inclusive classroom atmosphere.

Conclusion: A Universally Designed Latin Classroom

Second language learner studies speak to the need to meet a student at their unique stage of development, and not the reverse. In order to increase learner autonomy and motivation, an instructor must know the strengths and challenges that each student has and use an approach that can be tailored in a universally-designed Latin classroom. The theory of UDL, which has been incorporated into many public policies throughout the United States in education, higher education, educational technology, and workforce development, can be applied (CAST, 2019). A Universally Designed Latin classroom can offer students an active class environment that anticipates needs of learners.

The theory of Universal Design for Learning (UDL) was developed in the 1990s in response to schools' need to tailor materials and assessments for students with disabilities (Meyer, Rose, and Gordon, p. 4). In attempting to create individualized digital books to meet the needs of students with disabilities, researchers found a flaw in schoolwork, not the students:

> We began creating individual versions of digital books tailored to each learner's needs. Those with reading challenges needed to have text read aloud to them; those with limited vocabulary needed linked definitions; those with physical challenges needed to be able to turn pages with a single-switch interface; those with low vision needed large buttons that voiced their functions. Soon we realized that we could make a single digital book with all of these options embedded, and with a customizable

> interface so that each learner could find the supports they needed. This led to a major breakthrough in our overall approach: the realization that the curriculum, rather than the learners, was the problem. By "curriculum" we meant the learning goals, the means of assessment, the teaching methods, and the materials. (Meyer, Rose, and Gordon, p. 2).

According to this view, the traditional classroom treats the student body as if it is homogenous and focused heavily on assigning printed text. This creates "significant barriers for students in the margins, for whom the print-based environment simply did not work as the single means to access and express knowledge" (Meyer, Rose, and Gordon, p. 2). UDL encourages the design of a classroom that understands that no student is an "average student" and that all can benefit from the same sorts of supports that provide access to students with disabilities (Meyer, Rose, and Gordon, p. 2). It is a framework for teaching that individualizes learning experiences for greater learning outcomes by anticipating and responding to barriers preemptively.

The theory of Universal Design for Learning is based on examining individual differences in brain function and strategically designing a curriculum that addresses learners' needs:

> Brain functions and characteristics fall along a continuum of systematic variability. Thus, differences are incremental, distributed, and dynamic rather than stable and categorical within an individual. This contradicts the idea of bright lines between an idea of normalcy and deviation from normalcy, and challenges the practice of diagnosing and labeling individuals. From a practical viewpoint, it means that a UDL curriculum designer or teacher can plan for expected variability across learners and provide curriculum that has corresponding flexibility (Meyer, Rose, and Gordon, p. 2).

Individuals will fluctuate over time and the Universally Designed classroom provides variation in learning to address learning needs proactively. UDL theory suggests that,

rather than creating a division between those who receive certain supports and those who do not, creating an adjustable classroom can benefit all learners:

> The lesson or curriculum should then have the flexibility and affordances to amplify natural abilities and reduce unnecessary barriers for most students, and enable teachers to customize easily for each learner. Of course, there will be outliers who may require on-the-fly individualization or innovative single solutions. But with most of the variability addressed in the curriculum itself, teachers will have the time and attention to devote to this (Meyer, Rose, and Gordon, p. 2).

Activities need variation for students at all learning levels so that students who need more of a challenge are engaged and students who need more resources also have it. A Universally Designed Classroom, for instance, could offer students a variety of tasks to choose from that may fluctuate in difficulty, ask students to respond to topics in different ways, or ask them to produce items using different media.

Universal Design for Learning creates a more accessible, active classroom when multiple means of three main components are present in the classroom: representation, engagement, and expression (Meyer, Rose, and Gordon, p. 4). "Representation" refers to how the learning material is presented to the student. For instance, Latin can be provided in print or in digital format with varying supports. Students can listen to it when an instructor speaks it, or they can watch a video that has captions and hear Latin along with text. "Engagement" refers to the manner in which students interact with the material. In a Latin class, this would refer to the variety in activities provided and the manner in which students are asked to show comprehension of Latin. "Expression" refers to how the students respond to class materials and show their knowledge. For instance, students could produce their own hero stories after learning about ancient heroes but may also

have other choices to express their understanding of key topics. Students can show their understanding in a variety of ways such as writing, acting, producing a presentation, or creating artwork. While students will have varying preferences in how they show their knowledge, all will benefit from having the opportunity of selecting a means of demonstrating that knowledge that best highlights their strengths.

A Universally Designed classroom would anticipate needs of marginalized students and make them available to the entire classroom. For instance, I have observed that students with poor phonological processing may struggle to learn another language, including Latin. Second language classrooms can use repeated comprehensible input with supports such as captions, visual vocabulary aids, and easily accessible resources on desired topics online. In designing a classroom that seeks to provide as many supports that students could possibly need as it can, all students can benefit from having the opportunity to use them and those who require supports in order to engage with material in certain ways have a classroom that already addresses learner needs or is flexible enough to adjust to needs as they arise.

Each student brings different talents, perspectives, and skill levels to the classroom. Understanding the limitations and challenges that students face may be a key to helping instructors devise strategies, design lessons, and present material. However, such difficulties are *not* to be seen as reasons that one student is well-suited for a Latin classroom and another is not. Instructors serve as gatekeepers who assist in the process of generating excitement and interest in the subject matter and making the material accessible to all who wish to learn. The following chapter examines historic and

institutional barriers that have shaped modern education and influence Latin's declining enrollment today. Next, the chapter discusses motivation studies and theories of the self to identify best practices in creating a Latin class that is diverse, engaging, and inviting. Finally, I suggest the dedicated and skilled usage of technology in the classroom as a countermeasure to the systemic inequities identified.

Chapter Two: Motivation and Digital Tools

Introduction: Declining Latin Enrollment

The National Center for Education Statistics shows that Latin has had fewer than two hundred thousand students enrolled at the 9-12 grade levels from 1974 to 1994 (Snyder & Hoffman, 2002, p. 70). Although Lafleur (1998) reports that from the mid-70s, Latin enrollment has increased at the high school level by about 25 percent and has tripled since the early 80s at the middle school level, Snyder, de Brey, and Dillow (2016) reports that there has been a 15.5 percent decrease in enrollment in Latin courses at degree-granting post-secondary institutions from 2006 to 2013 (p. 528). While Lafleur's (1998) positive assessment is reflected in this data (from 1995 to 2006, there was a 24.2 percent increase in enrollments at the post-secondary level), the recent reported decrease shows that Latin education faces an existential threat if this trend continues. At the end of the day, students have to want to learn Latin, and Latin teachers should address the reasons why students are choosing to study other subjects. The individual motivations that each student brings to the classroom will shape the learning environment, pacing, and goals.

The drastic decline in enrollment in Latin courses as a result of removing Latin as a requirement in the secondary and university level suggests that there are concrete, institutional reasons that students have refrained from studying the language; its availability has decreased. For instance, citing budget cuts and low enrollment, Principal John Kaveleski of Wayland Middle School justified his decision to cut the Latin program because it "will impact the smallest possible number of parents and students" (Chen

2009). There are also fewer instructors at the high school level to fill positions, which can itself discourage school administration from supporting or creating Latin programs (Mahnken 2017). The utility of Latin courses has also been challenged, as has Latin's role as a recommended prerequisite for post-secondary education. Administrators point to the need to offer modern languages such as Spanish, French, and Chinese in order to usher students into a globalized world (Gallagher 2017, Grace 2017, Robertson 2018). Latin instruction and the language itself have been treated as an artifact.

Although matters pertaining to the school budgets are largely outside of the power of Latin instructors, the fact that declining enrollment is used to justify cutting programs highlights the need to control what can be controlled within the classroom. Students' personal reasons for declining to study the language should be a matter of interest to any Latin instructor. The matter of whether or not Latin should only see itself as a subject for students seeking to enter college is another topic for discussion. The complex analytic skills attributed to Latin study can serve those students as well if the classroom meets their needs.

If the goal of instruction is not to teach as we are taught but to strive to find methods that reflect research-based evidence about positive student outcomes, then Latin classes have faced mixed results. As discussed in the previous chapter, records of pedagogical trends suggest that Latin courses have long been centered around the knowledge of the instructor rather than the abilities of the students and have heavily focused on rote memorization and grammatical jargon. The intensive study of

grammatical terms may be intimidating, too dry, or too dense for some students and could have the effect of discouraging them from enrolling or continuing to study Latin.

I will return to the discussion of the alienating nature of the grammar/translation approach by itself later in this chapter. First, Latin must deal with the fact that it has been elevated by the same communities that have sought to oppress others. The study of the language has roots in an oppressive tradition and it must work to counter its past. I begin with a discussion of Latin's role in the history of college admission to demonstrate a connection between Latin and elite universities. These universities have long sought to control who has access to their facilities while also exercising political and cultural influence over American hegemonic belief systems.

Latin and the History of College Admissions

Latin has often been associated with the troubled history of Western education itself as a preeminent part of higher education's original curriculum. The connection between the study of Latin and elitism in American history may provide context for modern attitudes towards it. Because the very institutions that came to symbolize the gold standard of higher education denied access to perceived outsiders while elevating classical education, Latin language studies are associated with elitism and exclusion.

Harvard, the first American university, was established in 1636 and is described as a "connecting link in the transit of learning from the Old World and the New" that would serve as a "mother of American colleges" (Broome (1903), p. 11). The admissions statutes preserved in College Book No. 1 are presented in Latin:

> Cuicunque fuerit peritia legendi Ciceronem aut quemvis alium ejusmodi classicum authorem ex tempore, et congrue loquendi ac scribendi Latine facultas oratione tam soluta quam ligata, suo, ut aiunt, Marte, et ad unguem inflectendi Graecorum nominum verborumque paradigmata; Hic admissionem in Collegium jure potest expectare. Quicunque vero destitutus fuerit hac peritia admissionem sibi neutiquam vendicet (Broome, pg. 18).

Broome writes that readers were provided with an English translation:

> When any scholar is able to read Tully or such like classical Latin Author Tempore and make and speaker true Latin in verse and prose suo Marte, and decline perfectly the paradigms of nouns and verbs in ye Greeke tongue, then may hee bee admitted into ye College, nor shall any claime admission before such qualifications (Broome, pg. 18).

That Latin appears prominently on the document proves its significance to the very notion of what higher education entails.

Despite the social, political, and religious changes in America in the eighteenth century that created greater need to study "popular and useful" subjects that held "practical value," Ivy League institutions continued to hold firmly to the classical curriculum until the middle of the nineteenth century (Broome, p. 40). Academies and high schools became more popular by providing more pragmatic topics of education as enrollment throughout the middle of the nineteenth century (Broome, p. 72). In the mid- to late nineteenth century, some universities also slowly began to admit black students, but often did not allow them to matriculate or earn degrees[1] (Peart, 2009). In 1894, Radcliffe College received an official charter as a women's college, with Elizabeth Cary Agassiz as its first president. Harvard did not merge its admissions with Radcliffe until

[1] According to Peart, James Pennington, the first black man to study at Yale, was not allowed to matriculate or earn a degree. From 1834 to 1839, Pennington was only allowed to audit classes at the Divinity School.

1975 (Walsh, 2012). The struggle to obtain access to higher education for minority groups continued into the twentieth century in the form of admissions quotas[2], strict admissions requirements, and harassment of minority groups on campus.

Many colleges and universities are working to come to terms with their histories and to overcome modern challenges and Latin educators should also recognize the baggage attached to the subject. Latin played a key role in our intellectual history, with the result that educational institutions long prioritized the languages, history and culture of Greece and Rome over those of other people. Students of varying backgrounds have the right to question why this tradition exists and to come to their own conclusions about what ancient Greek and Roman studies have to offer them. The same institutions that historically exalted the study of Latin and Western culture were responsible for attempting to control and exclude populations of perceived outsiders. Beyond exclusion, the Ivy League Schools even used their influence over the intellectual, economic, and political spheres of American thought to justify the oppression of those populations.[3]

Elite institutions have long defined what it means to hold academic prestige while also denying those intellectual opportunities, often attached with social and economic benefits, to perceived outsiders. Colleges and universities continue to work to build safe places for minority students such as people of color, women, and people of the LGBTQ+

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[2] In the early twentieth century, quotas "supported by both the tacit and vocal consent of alumni and undergraduates" at Ivies were enforced: photographs were required on admissions forms, questions about race and religion were posed, personal interviews were required, and a corresponding quota on scholarship aid was imposed (Synnott, p. 186).

[3] Harvard championed academic research in racial science that long proposed the superiority of white people over blacks and featured staff members that adamantly opposed the abolition of slavery, even after outlawing slavery in Massachussets (Smith and Ellis, 2017).

community. Latin and Greek were the favored gatekeeping languages of a racist, classist and sexist social system that denied opportunities of higher education to less privileged students from the first stages of admissions well into the nineteenth century (Veysey, pgs. 115-117). The study of the Latin language itself has inherited an aura of elitism as a direct result of the history of admissions in higher education. Latin instructors have some work to do to rescue Latin from its reputation of being an exclusive language that is inaccessible to the underprivileged. The field of Latin language education can no longer afford to restrict itself to championing a language of "high culture" any more than it can afford to be irrelevant.

Under these circumstances, it is reasonable to ask what the general culture of a modern Latin class should look like and furthermore, to consider ways in which Latin can make itself more appealing to students who may associate it with the 'ivory tower'. This reputation alone may be intimidating to some students, but others may note that the exclusive history of higher education has facilitated the systemic silencing and oppression of minority groups via "voicelessness, facelessness, and spacelessness" (Nash and Viray, 2013, pgs. 24-28). Latin must embrace a pedagogy that focuses on inclusion and appreciates diversity despite its historic association with exclusive elitism. It must no longer be perceived as only a luxury for those privileged enough to have access to a classical education; Latin must be for anyone who wants to learn it.

Individual Motivations and Pedagogical Approaches

Attention to previous pedagogical approaches that may intimidate students or limit their access to material is necessary in order to establish a welcoming and inclusive

Latin program. Latin instruction has traditionally favored the grammar-translation approach in which students focus on information about the language. Typically, students are given morphology charts, verb drills, and sentences to translate (without context) as an introduction to their Latin instruction. Middle school Latin instructor John Bracey (2017) discusses the impact that the grammar-translation approach has on the classroom in his article, "Why Students of Color Don't Take Latin":

> So why does Latin continue to maintain this exclusionary and elitist reputation? Shouldn't these broad stereotypes be quickly debunked by actual experiences? Unfortunately, far too many Latin programs have embraced exclusivity rather than seeking to counteract it. Often this takes the form of making pedagogical choices that advantage a select few students and disadvantage the rest. I am not saying that all, or even most, of these teachers are *trying* to create homogenous classes. I am saying that certain practices [the grammar-translation-approach] have and will continue to create exclusive programs, regardless of intent… This approach takes a language that was once spoken comfortably by people of all backgrounds, social classes, ages, etc. throughout the world and renders it into a complex linguistic jigsaw puzzle that requires an elite mathematical mind to decipher. (Bracey, 2017)

The unwelcoming nature of the grammar-translation approach intimidates students who do not self-identify as particularly academic or ambitious. However, Bracey comments that in using a comprehension-based approach that avoids grammatical instruction, he was able to lead students into reading novice-level chapter books in Latin by the end of the instructional year. Even so, Bracey suggests that these accomplishments could be overlooked in a class that focuses on grammar because, despite students' demonstrated ability to engage with the Latin, they may not be able to fill out a morphology chart or identify an ablative of means (Bracey, 2017). This is unfortunate because, even though they do not have metalinguistic knowledge, these students can still comprehend the Latin,

and so *have* learned. Privileging metalinguistic knowledge over linguistic knowledge in testing is problematic because it ignores the students' ability to work with the language and requires instead that they devote more learning time to memorizing grammatical terms and out-of-context information about the language rather than engaging with the target language itself. This focus on metalinguistic knowledge is also impractical as it may blind instructors (and administrators) to the progress that can be, and is being, made in the Latin classroom.

The grammar-translation approach is both exclusive and ineffective in the acquisition of language. Researchers have noted that "results have been consistently negative so far as the value of grammar in the improvement of language expression is concerned" (Deboer 1959, p. 417). A later meta-analysis of research on the role of grammatical instruction in composing sentences among English-language learners stated that, "None of the studies reviewed for the present report provides any support for teaching grammar as a means of improving composition skills" (Hillcocks 1986, p. 138). While providing explanations of grammar in context is appropriate, teaching and testing based on grammar privileges those students who can memorize information about the language rather than those who are better at absorbing grammatical patterns. Grammar-based instruction denies learning opportunities to students who do not or cannot engage with abstract information that does not necessarily increase their ability to work with Latin (Bracey, 2017).

If Latin class is to persist, then it has to contend with its past and it has to meet the needs and goals of the learner. It must anticipate and address these requirements and seek

to offer tasks and activities that can be achievable and build learner confidence. Among factors that affect learners' self-efficacy and motivation is learner anxiety, which has a suggested correlation with low performance in the second language classroom. Dunkel (1947) (cf. Krashen (1983: 29-30); also cited in Pimsleur, Mosberg, and Morrison (1962)) found that low achievers in Latin showed "emotionality, inner conflict, and anxiety" on a personality test. Anxiety is a direct obstacle to one's ability to process input and to having the motivation to generate the language.

In foreign language anxiety (FLA) studies, Horwitz, Horwitz and Cope (1986) introduce the Foreign Language Classroom Anxiety Scale (FLCAS), which is still used to measure the language anxiety that students experience. Horwitz *et al*. (1986) suggest that language learner anxiety is distinct from other types of anxiety which stems from feelings of frustration at having one's communication skills and intelligence challenged:

> Adults typically perceive themselves as reasonably intelligent, socially-adept individuals, sensitive to different socio-cultural mores. These assumptions are rarely challenged when communicating in a native language as it is not usually difficult to understand others or to make oneself understood. However, the situation when learning a foreign language stands in marked contrast. As an individual's communication attempts will be evaluated according to uncertain or even unknown linguistic and socio-cultural standards, second language communication entails risk-taking and is necessarily problematic. Because complex and nonspontaneous mental operations are required in order to communicate at all, any performance in the L2 is likely to challenge an individual's self-concept as a competent communicator and lead to reticence, self-consciousness, fear, or even panic. (Horwitz *et al.* 1986: 128)

While Horwitz *et al.* focus on adults' concerns about feeling competent, the self-concept of teenagers is equally if not more fragile and susceptible to the same sorts of issues when facing the task of learning a new language. The experience of contending with

challenging subject material may create anxieties for students in a variety of ways. Horwitz *et al*. describe three types of situation-specific anxiety: communication apprehension (CA), fear of negative evaluation (FNE), and test anxiety (TA). These distinct anxieties are measured in the FLCAS in order to best predict the relationship between language anxiety and learning outcomes.

While their studies have typically focused on the college learning environment in which nearly all learners are adults, the FLCAS has been adapted to assess language anxiety in high school students. Ayudin *et al.* (2017) account for developmental and cognitive differences in younger learners by translating the scale into Turkish (the native language of students being evaluated) that was appropriate for students in primary and secondary schools (p. 46). The study concluded that the Child Foreign Language Anxiety Scale (CFLAS) was consistent with other findings using the FLCAS (p. 49). Language learners of all ages experience the same sorts of anxiety that can decrease achievement in class, intimidate or discourage students who would enroll, and create an environment that focuses solely on test scores as evidence of success in class: "FLA may also cause the case that learners appreciate achievement that is based merely on test scores rather than taking the whole performance during the learning process into account" (Ayudin *et al.* 2017, p. 43). Because this anxiety can decrease a students' motivation, attending to pedagogical methods that create an accessible classroom environment are essential.

Latin, as a discipline, may (partly) rescue itself from its bad reputation, which can generate anxiety and discourage enrollment, if it can end its complacency with classes that teach only some students grammar or that focus on the knowledge of the instructor.

To do so, it must embrace a pedagogy that seeks to engage every student actively by creating a welcoming classroom community and optimizing their motivation to be a Latin learner.

The significance of a student's motivation to engage with the language cannot be understated. As important as the delivery of comprehensible input may be to developing a student's overall grasp of a language, Krashen (1983) notes that other factors can undercut instruction:

> Some potential intake may not make it to the 'language acquisition device': acquirers' motivations and attitudes, if they are less than optimal, may filter out certain aspects of the input, so that they are no longer available to the acquirer as intake, even if the requirements for intake… are met. Thus, motivational and attitudinal considerations are *prior* to linguistic considerations. If the affective filter is 'up', no matter how beautifully the input is sequenced, no matter how meaningful and communicative the exercise is intended to be, little or no acquisition will take place (Krashen, 1983: 110).

The different motivational factors that challenge and encourage students in the classroom need to be assessed in order to construct best practices for successful learning outcomes. Cultural, ethnic, social, economic, personal, medical, psychological, institutional and historical circumstances can facilitate or hinder a student's success in receiving input. As such, a student's intersectional identity represents a key point of data to be addressed in and out of the classroom in order to differentiate instruction that anticipates and corrects for the specific needs of learners. Anxiety or low motivation can increase the affective filter and prevent the absorption of any language input. Krashen suggests that learners' cognitive processes are only part of the story, and perhaps not even the most important component of instruction.

Educators also have to attend to the specific motivations that push their students to do well in addition to any barriers to their motivation that may obstruct a student's ability to receive input or engage with the language. The motivations that drive students through their exploration into other languages can help to determine achievement. Students who experience high motivation may overcome deficiencies in aptitude, while students with low motivation may struggle to fulfill their potential regardless of their capability. Psycholinguist Zoltan Dornyei (2005) remarks on the special role that motivation takes in a second language classroom:

> It is easy to see why motivation is of great importance in SLA: It provides the primary impetus to initiate L2 learning and later the driving force to sustain the long and often tedious learning process; indeed, all the other factors involved in SLA presuppose motivation to some extent. Without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricula and good teaching enough on their own to ensure student achievement. On the other hand, high motivation can make up for considerable deficiencies both in one's language aptitude and learning conditions… (Dornyei, 2005: 65).

Dornyei (2005) provides a model for looking at various dimensions of students' self-perceptions, which he calls the L2 Motivational Self System. Although aspects of these concepts are outside of the control of instructors, the creation of a positive learning environment that focuses on building goals geared towards recognizing the intrinsic value of language learning over extrinsic rewards can ultimately improve a student's learning outcome: "there may be two potentially successful motivational routes for language learners, either fueled by the positive experiences of their learning reality or by their visions for the future" (Dornyei 2005: 106). This construct uses psychological theories of

the self to form a three-point model that may account for the various ways in which a student can envision their role as a student and impact a learner's overall effort and ability to engage with the target language. Influenced by the work of psychologists Markus and Nurius (1986) and Higgins (1987) on the 'possible selves'[4], Dornyei centers his model around the Ideal L2 Self, the Ought-to L2 Self, and the L2 Learning Experience (Dornyei and Ushioda 2009: 11).

The Ideal L2 Self describes how students see themselves in an ideal world. This possible future self-guide involves the intrinsic rewards that one receives when learning a language. These may include the benefits of engaging with an interesting subject, interacting with others in the target language, or the ability to read or write in the target language. The student is motivated to bridge the gap between their ideal selves and their present selves.

The Ought-to L2 Self focuses on the characteristics that students believe that they should possess. These may involve duties, responsibilities, or obligations that learners perceive themselves to have (Dornyei and Ushioda 2009: 13). This construct involves many extrinsic motivational factors such as avoiding poor grades. The focus is on preventing the self from becoming a feared self, a version of the learner's self that is inconsistent with their duties and values or seemingly fails to meet responsibilities. As the learner seeks to harmonize the actual self with a version of themselves that lives up to all of their duties and obligations, the Ought-to Self attempts to prevent negative outcomes by conceiving of the things that the learner feels that they should do (Dornyei

[4] Dornyei (2005: 100) credits Higgins (1987) for the concept of the Ideal and Ought Self.

and Ushioda 2009: 18). It is distinct from the Ideal L2 Self because the Ought-to Self is concerned with responsibilities that may not reflect the actual hopes, wishes or desires of the learner. A goal-oriented pedagogy that builds the image of an Ideal L2 Self can increase motivation and achievement under certain conditions:

> "[T]he Ideal L2 Self is an effective motivator if (1) the learner has a desired future self-image, (2) which is elaborate and vivid, (3) which is perceived as plausible and is in harmony or at least does not clash with the expectations of the learner's family, peers and other elements of the social environment, (4) which is regularly activated in the learner's working self-concept, (5) which is accompanied by relevant and effective procedural strategies that act as a roadmap towards the goal, and finally (6) which also contains elaborate information about the negative consequences of not achieving the desired end-state" (Dornyei and Ushioda 2009: 32).

These two possible selves revolve around the imagination of the learner and the perception of who learners want to be as well as who they feel they are expected to be for others (Dornyei and Ushioda 2009: 16). The Ideal L2 Self focuses on the personal goals that learners hope to see from themselves in the future. The Ought-to Self expresses the expectations that other people and circumstances impose. This may include a vision of the person that the learner thinks that they should be as well as who the learner thinks that they should not be. As students build images of themselves, they are motivated by the desire to become more like the imagined Ideal or Ought-to self. While there are few things an instructor can do in the classroom to address the duties and obligations imposed on the learner by their parents, friends, authority figures, and community, the instructor should be aware of the pressures of the Ought-to Self and can help create goals that assist the student in avoiding negative outcomes (Dornyei and Ushioda 2009: 32).

The final piece of the L2 Motivational Self System is the L2 Learning Experience itself, which refers to the particular motives attached to the classroom environment and overall student experience. This piece of the construct addresses the impact of the instructor, the classroom community, and the experience of being a student of the target language itself. Dornyei (2005) describes this as a "causal dimension" that functions as a bridge between the creation of goals realized by the Ideal and Ought-to Selves and the behaviors that lead to successfully meeting these goals (p. 106). Ushioda (2001) found that "students with positive learning experiences tended to emphasize intrinsic motivational factors whereas participants with less illustrious learning histories tended to define their motivation principally in terms of particular personal goals or career plans" (Ushioda 2001, cf. Dornyei, p. 106). As an instructor, building a sense of connection with the language and class such that the learners envision their Ideal L2 Selves as successful can create greater learning achievement than merely focusing on external rewards attached to knowledge of the language.

Dornyei discusses improvements to the classroom that can increase motivation in students. A positive teaching persona that encourages students and assists in the goal-setting process is key to creating a learning environment that is positive and productive. Additionally, instructors are urged to design activities and give feedback that emphasizes what students *can* do rather than what they *cannot* do. The promotion of "motivation-enhancing attributions" is also encouraged with the goal of improving metacognitive strategies. As students recognize links between their effort and their progress, they may learn to manage failure by being able to distinguish between inability and lack of

preparation, inefficient studying, or confusion in regards to the task or instructions. Attainable subgoals may also assist students to take ownership of their learning progress and hold themselves accountable. As they measure their successes and challenges, students may become more aware of their achievement, and this awareness may in turn increase motivation to maintain or improve their progress.

A student's need for achievement and self-efficacy may inform the manner in which students interpret instructional feedback and engage with coursework. For instance, Dornyei (1994) warns that students lack belief in their ability to learn initially and therefore instructors "can and should help [their students] develop a sense of self-efficacy by providing meaningful, achievable, and success-engendering language tasks" (p. 277). The instructor can create assignments and activities, in other words, that are designed to help to improve a student's confidence.

Course-specific motivational components, such as a syllabus that is tailored to students' specific desired learning outcomes can pique their curiosity and attention by introducing a dynamic learning environment that varies routines and texts (Dornyei 1994, p. 281). This interest may also be stimulated by giving students autonomy over their own learning such as the choice of texts. By allowing students to have a sense of involvement in the class, a teacher can foster a community within the classroom that establishes the importance of each of its members. Building a sense of students' satisfaction with their work by providing them with products that can create a sense of accomplishment can ultimately lend itself to increasing students' self-efficacy and instilling intrinsic motivations (Dornyei 1994, p. 282). Fostering a feeling of belonging to a classroom

community through the establishment of norms and encouraging collaboration are the two greatest factors in generating group-specific motivation. As such, classes should help students create and keep track of their goals, focus on their achievement, and have greater contact with the culture attached to the target language. A variety of tools are available on and offline that can be implemented to increase learner collaboration, but particular attention to digital tools must be given because of the unique opportunities that they afford instructors and learners.

I have previously discussed major considerations for the high school Latin teacher: fluctuations in enrollment necessitating a shift in pedagogical methods, Latin's connection to elitist institutions that were notorious for exclusionary practices, and factors that contribute to a student's motivation in the classroom. In the following section, I present a Latin classroom that provides a blended approach to teaching in response to issues of social equity based on access and usage of technology. Its goals are to serve all students by providing access to comprehensible Latin and relevant resources on-and-offline, to promote students' digital literacy and preparedness for the future by challenging them to analyze and produce content online, and to foster a safe and welcoming community that encourages a growth mindset.

Motivations for a Blended Approach

While incorporating technology into the classroom is hardly the only path to motivating students, the rest of this chapter will focus on a blended approach to teaching Latin. The emphasis on providing technological resources in the classroom is twofold: the first is to modernize Latin and bring more culturally relevant, student-centered

material into the classroom; the second is to address the digital divide by encouraging digital literacy and preparing students for a globally-connected world. Amid the competitive college application process that high school students face today is the growing reality that inequity has taken root in another form: the digital divide.

The term "digital divide", coined in the 1990s, describes the growing information and technology gap between those who have greater access to online resources and those who do not (Fortner, Normore and Brooks (2019: 3). The theory of the "digital divide" suggests that wealthier individuals are able to live in areas with higher-quality Internet access and pay for more up-to-date goods and services. In other words, they are capable of keeping up with the technological trends and have more and better access to the material and immaterial resources. People in rural and low-income areas may have less access to the Internet or computers, but as smartphones close this aspect of the gap, larger and more significant aspect of the divide is the manner in which these tools are being used. The "haves" and the "have-nots" seem to be less significant, researchers argue, than the "cans" and "cannots":

> The "cans" are students who are connected at home and in school. They not only own technology but they utilize it in a manner that demonstrates proficiency. They are tech savvy students who actively produce, create, design, and publish online. They leverage technology utilizing multiple aspects to promote their learning and understanding of the world. The "cannots" have fewer opportunities to actively leverage technology. With limited access in home and at school, these students typically attend low SES schools with limited access to computers, insufficient bandwidth, low budgets, and teachers who lack adequate technology training. These students do not have the opportunity to utilize technology in a way that is creative or tied to their interest (Fortner, Normore, and Brookes, p. 9).

Students coming from more vulnerable areas may or may not consume media, but their ability to produce content, utilize resources, and access information may be limited. As a result, their skills coming out of a public high school may be disadvantaged as compared to a student from the other side of the divide who has resources readily available.

It is imperative for high school educators to recognize their role in helping students enter into a twenty-first century world that regularly utilizes technology in its educational, financial, and recreational aims with the relevant skills in analyzing and publishing digital materials to enter either into the job market or postsecondary education upon graduation. A component of this goal involves improving technology training for teachers so that they can act as appropriate models of technology users for students. Students' experiences with technology is "limited to the [technological] abilities of teachers" and may often consist of "repetitive practice rather than more sophisticated, intellectually complex applications" (Fortner, Normore, and Brooks, p. 9).

Overwhelmingly, instructors are looking to the tools available digitally to supplement their courses and enrich student learning. Many schools and school districts are now providing students with devices to encourage responsible and academic usage. We have previously discussed using digital tools in the classroom for the purpose of increasing engagement with technology in an attempt to promote social equity, but digital tools are also associated with positive learning outcomes. A 2009 meta-analysis expands on the nature of the perceived advantage of blending online learning application with face-to-face instruction:

> Despite what appears to be strong support for blended learning applications, the studies in this meta-analysis do not demonstrate that online learning is superior as a medium. In many of the studies showing an advantage for blended learning, the online and classroom conditions differed in terms of time spent, curriculum and pedagogy. It was the combination of elements in the treatment conditions (which was likely to have included additional learning time and materials as well as additional opportunities for collaboration) that produced the observed learning advantages. At the same time, one should note that online learning is much more conducive to the expansion of learning time than is face-to-face instruction. (Means, Toyama, Murphy, Bakia, & Jones, p. xviii).

While the authors do not ignore the challenges of the goal of their study and the overall significance of various factors that also contribute to their findings, they are able to suggest that factors such as increased contact with other students and with the material contribute to greater learning opportunities. Minimally, a higher likelihood of successful learning outcomes may accompany higher self-efficacy.

Reinders and Wattana (2014) write on affect and a student's willingness to communicate (WTC) in digital game-based learning situations. They examined Thai English Foreign Language (EFL) students' WTC or "readiness to enter into discourse at a particular time with a specific person or persons, using a L2 [second language]" in a 15-week university language course, English for Information Technology (p. 42). A series of interviews were conducted in which students reported both favorable and unfavorable experiences while playing the game 'Ragnarok Online' and completing a quest within the game (p. 43). Students were asked about their experiences while interacting in the game. The research reported that students enjoyed having the opportunity to compose more English. The convenience of being an anonymous voice online seemed to enable

language learners to feel safe in composing English without being attached to error. For instance, one student claimed:

> I used English a lot because I could communicate freely without the intervention of or evaluation from the teacher, and I could say anything and do anything I could to accomplish a game task… I did not have to, like, worry about the accuracy of grammatical forms, so I didn't feel pressured and, consequently [I was], very willing to try and interact in English (p. 44).

In other words, the learner felt a sense of ownership over her imperfect English and even embraced opportunities to produce the language in order to complete a task without the worry of an instructor's intervention or correction. In this way, the students' anxiety about error subsided with the protection of a game. The affective filter discussed by Krashen can be lowered by allowing students to have activities that are meaningful and achievable. As a result, students were more willing to compose and interact in the target language.

The willingness of students to communicate in the target language is directly related to the generation of output that ultimately begins to solidify as students master concepts. MacIntyre (2007) suggests that positive learning outcomes depend on a question that takes into account both students' motivations and anxiety about using the language: "If we consider the interaction of motivation (approach) and anxiety (avoidance), we arrive at what might be the critical decision for language learning success: Does a learner choose to communicate when the opportunity arises?" (p. 567). Students decide for themselves based on circumstances and attitudes towards the language when and how they will engage in the language. Building motivation and

removing barriers to exploration in the target language can only benefit students' learning outcomes.

Dugdale (2011) writes about his experience teaching beginning Latin courses that incorporate creative writing prompts. He claims that the result of allowing free composition is that, "students are more invested in such assignments than in more passive exercises such as 'fill-in-the-blanks" (p. 18). Dugdale found that students exhibited a "heightened degree of investment in getting their compositions 'right'" and greater interest in more technical aspects of the language itself (p. 18). Finally, he noted that students expressed interest in each other's lives and demonstrated a stronger sense of community as they shared their writing. The opportunities for students to demonstrate willingness to communicate (WTC) in a Latin classroom may be different than those of a modern language classroom (i.e., Ragnarok Online is not presently available in Latin), but the benefits of encouraging students to communicate in Latin are clear.

In the same study led by Reinders and Wattana (2014), another student mentioned the benefits of "being supportive of other game participants". They suggested that anonymity within the game led to collaboration rather than anxiety or feelings of embarrassment in interacting with partners (p. 45). The competitive and shameful atmosphere evaporates when other members of the class are all anonymous avatars. Collective participation towards a main goal or task that involves meaningful and contextual use of the target language can lead to stronger comprehension of input and stronger motivation to practice generating output.

The encouragement of peers can further assist in moving from the willingness to communicate any language to a greater interest in the language and its finer points. As students strive to communicate with each other more successfully, acquisition occurs. It is through this process of meaningful collaboration that students have the greatest learning opportunities. For instance, Rania *et al.* (2015) conclude that team-based learning improved the grades of psychology students over students who took the same course in a lecture format (p. 950). It is even noted that minor conflicts, if well-managed, can help lead to problem-solving skills that contribute to successful performance (p. 950). Classroom platforms that ask students to communicate among themselves or to create a product are catalysts for the increased composition of authentic oral or written communication. In a 2010 study of participation and community in a blog for an advanced course in Italian, "Italy through Food" (Miceli, Visocnik-Murray, and Kennedy, 2010: 321), students were given questionnaires that asked them about whether or not the blog influenced positive or negative feelings towards the class group. All but one student felt it "contributed to a sense of community" (p. 335). Despite their lack of participation, it is noted that:

> The exception is S[tudent] 15, whose (relatively few) contributions never included any connected voice patterns. However, it is interesting to note that her answer to the question about the effect of the blog on her feelings about the class-group was 'I often didn't write in the blog and sometimes felt that I had missed something important', suggesting that she felt there was some kind of bond that she would have been part of if she had contributed more. (Miceli, Visocnik-Murry, and Kennedy, 2010: 335-337).

In this instance, students demonstrate strong self-awareness about the opportunity that they missed out on as a result of declining to participate and shared a perception of the positive impact that the collaboration had on other students.

Miceli, Visocnik-Murray, and Kennedy (2010) also note that students, despite having the opportunity to be anonymous on the discussion forum, often decided to openly display their names and even went so far as to add identifying comments in four of the five posts made without names. Researchers interpreted this behavior as "demonstrating confidence in the group's supportive reaction to their comments and concern not to be seen as seeking anonymity" (p. 337). The confidence that was built among students was ultimately attributed to three factors: the blended online and face-to-face components of the course, the positive and attentive environment established by the instructor, and the personal nature of the communication on the blog. As students were asked to share their own experiences and were free to write on the blog without explicit corrections in comments, they were able to explore the language and "invest their linguistic efforts in personal writing" (p. 338). Students were asked to communicate about themselves without the fear of embarrassment and as a result, were more willing to engage in the learning experience. Because students were given time to work with material from the blog in and outside of class, they were able to review the material frequently and practice editing compositions rather than passively reading or memorizing grammatical facts. With their anxiety and affective filter reasonably decreased, students were able to focus on communicating.

The significance of building instruction around meaningful context is also documented in Tashakori (2013):

> [Strategic] instruction should be embedded in meaningful communicative contexts: The material itself does not have much meaning; if the topics are related to concepts, they are easier to learn. It is one of the significant ways to make [a] connection between new knowledge and what are in learners mind (p. 45).

Achievable tasks that are meaningful are success-engendering because students have an opportunity to actively explore content rather than passively receive it. Grammar drills and model sentences, for instance, are decontextualized chunks of language without significance to learners. Students have a greater opportunity to internalize information that they deem to be more interesting or relevant.

The modern Latin instructor can best explore digital tools by examining the benefits that they offer students. Because of the comfort that comes with online anonymity, students display greater willingness to communicate over chatting platforms and discussion boards. Platforms that allow for transcripts to be saved and reviewed also allow students to go back and edit their work and chat-style platforms allow for students to explore in the target language in live-time without the fear of correction. Students who are given a greater amount of structured autonomy in their classwork may show greater ownership over these activities. In providing students opportunities to engage with the language in a comfortable and familiar way, students can develop a greater sense of accomplishment in learning something that feels relevant and significant to them.

Conclusion

As high schools and colleges work to create opportunities for all students and challenge social inequity, they must also work against trends set into motion centuries ago. The history of denying admission based on race, ethnicity or gender continues to shape communities today. These institutions were responsible for shaping key thoughts that validated oppressive belief systems that we continue to see today. Beyond privileging the study of Western intellectual histories, these institutions generate politicians, lawyers, and thinkers who will continue to shape the culture. While these institutions have changed over time to reflect greater social awareness and become a force of social justice, rising tuition costs continue to be a major barrier to admission for students who are unable to finance college without their parents' resources.

As such, Latin instructors must detach their classes from Latin's classist, elitist history and gain insight into how Latin can serve all communities. We have also seen that the decline in enrollment in Latin classes is evidence that the prevalent pedagogical approach, the grammar-translation approach, should be reassessed. While there is little evidence that supports the intensive study of grammar as creating language proficiency in its students, there is evidence that it is inaccessible and intimidating to students. As a result, attention to the specific anxieties that face language learners as well as individual motivations that would cause a student to be a learner of Latin must be a matter of attention. Dornyei (2005, 2009) suggests through the examination of the L2 Motivational Self model, instructors can develop classroom techniques that emphasize the intrinsic rewards attached to learning a second language, especially by focusing on the L2 learning

experience and by facilitating the construction of realistic and attainable language goals to promote a sense of self-efficacy. Teachers can provide student-centered classrooms that respond to students' individual learning goals and promote an inclusive community.

In addition to examining theories of the self and a teacher's role in improving motivation in the classroom, I suggested providing a blended classroom in response to the digital divide. The digital divide does not merely refer to the division between those who do and do not have a computer at home, but rather to inequities in the ways they are used: "the emergence of rapidly changing forms of new media has also resulted in new relationships between those who primarily produce it and those who mainly consume it" (Mahiri, p. x). The growing gap between students who do and do not have access to the Internet along with the disparity in its users' capabilities necessitates improving digital literacy throughout the high school curriculum, particularly in low-income areas. These are the communities that are most greatly impacted by the material and cultural disadvantaged associated with lack of access and usage.

One way to improve motivation amongst students is to introduce accessible, interesting, and significant materials. Using digital tools such as online games and blogs, students report a greater sense of classroom environment and community. A positive and supportive classroom community promotes the avoidance of inappropriate use of either the language or the platform and creates a greater sense of connection among students that leads to greater willingness to contribute and engage with the target language. Students with a stronger sense of belonging in class feel greater intrinsic motivation to

achieve in it. A great number of online tools can be adapted to meet the varying needs of students. These will be outlined in the following chapter.

Chapter Three: Catalogue of Digital Tools

Introduction

So far, I have reviewed theories of second language acquisition in chapter one and discussed motivations for a blended pedagogical approach. Students benefit when instructors make resources available for them online. An online platform for classes helps students keep up with work when they are absent from class, track and turn in assignments remotely, and find information quickly.

A 2013 study of English language learners in Iran reported nearly thirty-one percent of students strongly believe in making use of technology to help better understand and contextualize samples of input in the target language (Ghyasi, Safdaria, Farsani 2013, p. 26). Given that it is unlikely that the demand for technology in the classroom will wane, careful assessment of the variety of tools currently available is necessary. Below, I outline a few of the ways in which instructors can incorporate these tools into the classroom. Social media groups on platforms like Facebook and Twitter such as the Latin Teacher Idea Exchange continue to provide teaching materials, insight into classroom challenges, and an open forum for dialogue that are teacher-focused (Facebook, 2019).

This non-exhaustive catalogue is divided into five categories of representative resources: comprehension, grammar, or vocabulary; Free Voluntary Reading (FVR); composition; audio/visual; and cultural exploration.

Comprehension, Grammar, and Vocabulary Tools

While I have so far offered motivations for incorporating new pedagogical strategies into the Latin classroom, grammar and translation will always be a part of any language classroom and is often recommended for advanced students. Consequently, it is valuable to take stock of the developing technological resources for these more traditional teaching methods.

Although vocabulary-learning lists and flashcards present words in isolation and without context, many instructors still give students vocabulary assignments to supplement in-class readings and assignments. Easy games and access to flashcards may be an effective tool for learning vocabulary. More advanced students may benefit from Dickinson College's Latin Core Vocabulary, which focuses on the thousand most common words in Latin (Francese, 2014). It may be subdivided by grammatical or thematic category, allowing students to select shorter lists based on their immediate interests or needs (see figure 1).

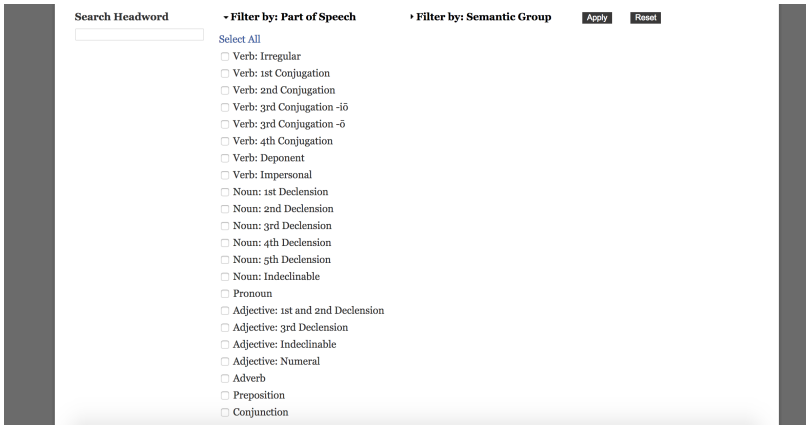


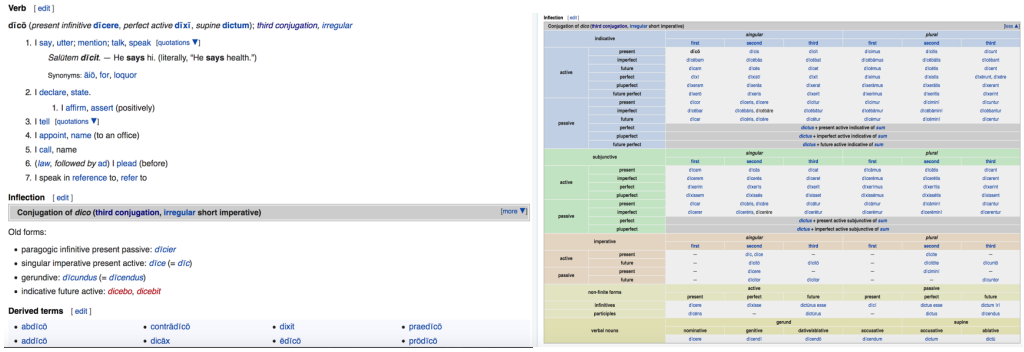
Figure 1: Filtering by Part of Speech in Dickinson College's Latin Core Vocabulary

In addition to this vocabulary list, Dickinson College Commentaries provides a multitude of resources that feature texts from the AP Latin curriculum providing historical and cultural context, such as maps of Gaul to reference while reading Caesar's *De Bello Gallico* (College Board, 2019). These are helpful, but sometimes very dense materials for high schoolers. Other websites such as NoDictionaries.Com can provide advanced students with running vocabularies that correspond with texts such as Vergil's *Aeneid,* Horace's *Odes,* and Caesar's Gallic Wars. Tufts University's Perseus Project features an online library and dictionary that would also be suitable for more advanced Latin students.

Students tend to ask for resources like noun/verb charts and reliable online dictionaries (especially with a Latin-to-English function) when reading or writing in Latin. Wiktionary is a case-sensitive dictionary that can be used to check usage, the full declension chart, and other information about a given word in Latin. The dictionary is not complete, but is extensive. It attempts to collect information about all languages, so students should find the corresponding Latin entry in order to see definitions, charts, and other information.

Figure 2: Noun's Content Page and Entry on Wiktionary

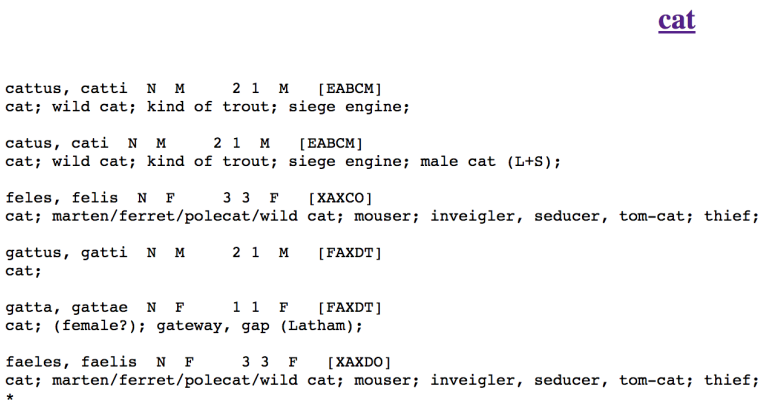
After finding the entry, students are given details on etymology, usage, and derivatives. Nouns will feature a full noun chart while verbs will have an inflection chart. If you click on the arrow under the "Inflection" tab that says "show", the verb's full chart will also appear. Navigating this website is difficult for many first and second users.



Figures 3: A Verb's Entry Page and Fully Inflected Reference Chart on Wiktionary

Among college students, The University of Notre Dame's Whitaker's Words is a favorite online dictionary. It allows students to search for words that are both English-

Latin and Latin-English. The website provides several options and allows users to pick the best-fitting word (see Figure 4).

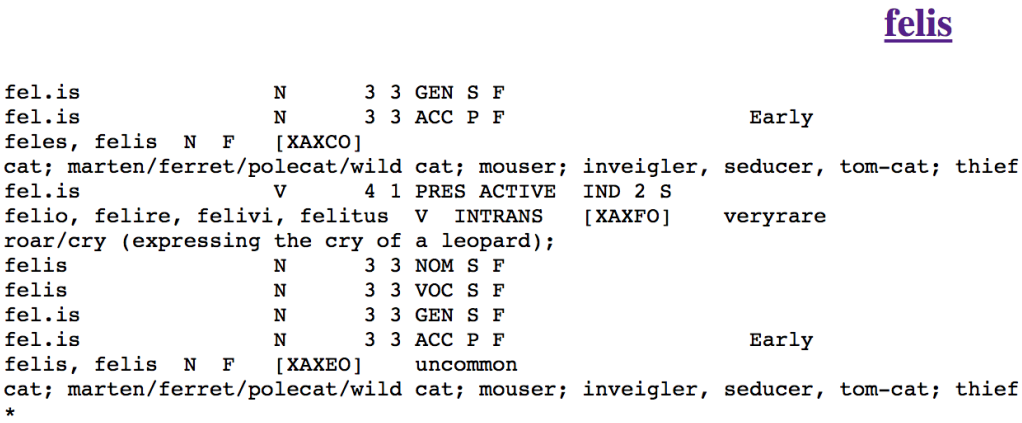


cat

```
cattus, catti  N  M     2 1  M   [EABCM]
cat; wild cat; kind of trout; siege engine;

catus, cati  N  M     2 1  M   [EABCM]
cat; wild cat; kind of trout; siege engine; male cat (L+S);

feles, felis  N  F     3 3  F   [XAXCO]
cat; marten/ferret/polecat/wild cat; mouser; inveigler, seducer, tom-cat; thief;

gattus, gatti  N  M     2 1  M   [FAXDT]
cat;

gatta, gattae  N  F     1 1  F   [FAXDT]
cat; (female?); gateway, gap (Latham);

faeles, faelis  N  F     3 3  F   [XAXDO]
cat; marten/ferret/polecat/wild cat; mouser; inveigler, seducer, tom-cat; thief;
*
```

Figure 4: English-to-Latin with the word "Cat" on Whitaker's Words

Students are sometimes overwhelmed by the options and the shorthand grammatical information given. The dictionary also gives an abundance of information designed for students already familiar with grammatical terminology. Beginner students who are familiarizing themselves with the tools can become very frustrated with the perceived 'noise'.



felis

```
fel.is               N      3 3 GEN S F
fel.is               N      3 3 ACC P F                    Early
feles, felis  N  F   [XAXCO]
cat; marten/ferret/polecat/wild cat; mouser; inveigler, seducer, tom-cat; thief
fel.is               V      4 1 PRES ACTIVE  IND 2 S
felio, felire, felivi, felitus  V  INTRANS   [XAXFO]    veryrare
roar/cry (expressing the cry of a leopard);
felis                N      3 3 NOM S F
felis                N      3 3 VOC S F
fel.is               N      3 3 GEN S F
fel.is               N      3 3 ACC P F                    Early
felis, felis  N  F   [XAXEO]    uncommon
cat; marten/ferret/polecat/wild cat; mouser; inveigler, seducer, tom-cat; thief
*
```

Figure 5: Latin-to-English with "Felis" on Whitaker's Words

Students may struggle with the interface of both of these, but will use it over less-ideal tools such as Google Translate when they are given consistent reminders about how to use them.

A 2015 study reports that students appreciated the user-friendly nature of the online platform Quizlet to learn vocabulary (Chien 2015, p. 119). Visual learners at all levels may be intrigued by vocabulary learning platforms such as Quizlet and Quia that allow users to upload pictures to supplement their vocabulary cards.

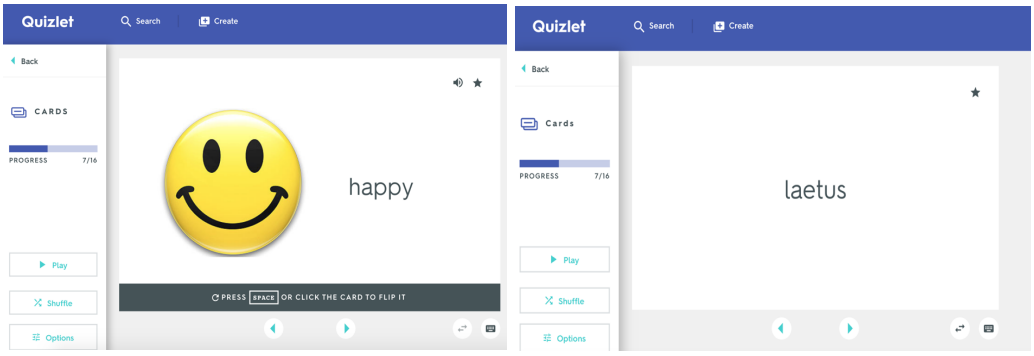


Figure 6: Flashcard with English word and image and Latin reverse on Quizlet

Images of the item may help build associations between the item and its word. Students may either browse lists that are made and shared on the website or create their own. Figure 6 shows one word's front and reverse from a premade vocabulary list that corresponds to the Cambridge Latin Course (Quizlet, 2019).

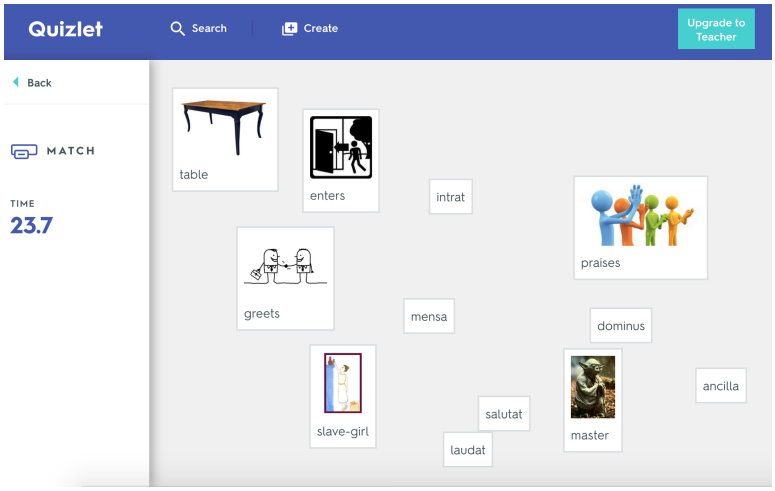


Figure 7: Quizlet Vocabulary Matching Game

The Vocabulary Matching Game (Figure 7) allows students to match tiles with the vocabulary card and its definition on it (Quizlet, 2019). Students are given a short selection of vocabulary words to choose from and the main screen displays their time and best time for completing the game. In-class Quizlet Live games include an access code that students can enter on laptops, tablets, or mobile devices to begin games as a class. Students have the opportunity to compete against each other and track their progress. Quizlet Live also allows for putting students in groups to race against each other. This facilitates student collaboration while learning or reviewing vocabulary words. While basic features are available for free, Quizlet does have a paid subscription for teachers that includes features such as the ability to customize the Quizlet Live gaming feature, an ad-free experience, and the ability to create different groups to organize materials for each class.

Kahoot! is also a popular platform for vocabulary learning. Figure 8 shows a short sentence with four options students may select from in response to a prompt (Kahoot!, 2019).

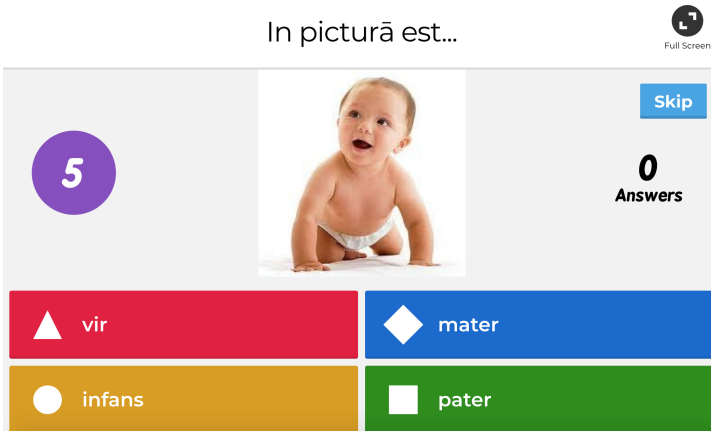


Figure 8: Selecting the Correct Word in Kahoot!

Laura Briscoe notes that she uses it to teach vocabulary and has also used Kahoot! Jumble to test students' reading comprehension by ordering events in stories (Briscoe, 2019). Figure 9 shows the main screen view of four events that occurred in a Cambridge Latin Course Stage 1 reading (Kahoot!, 2019). The game allows students to collaborate to order the events in the story as a post-reading activity.

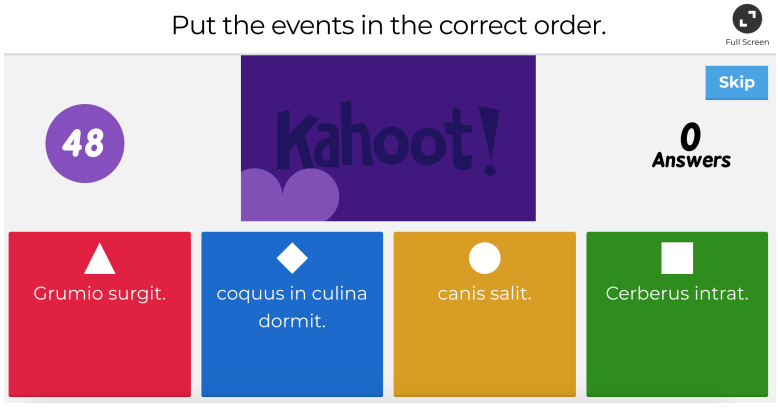


Figure 9: Kahoot! Jumble

Gimkit provides five free games that incorporate knowledge and strategy by introducing a pretend monetary reward system for correct answers (Gimkit, 2019). Students can use the money they earn from correct answers to buy upgrades in the game, such as insurance to reduce money taken away for incorrect answers, a streak bonus, and a multiplier (Gimkit, 2019). Figure 10 demonstrates a sample question and the options for how students can invest their earnings (Gimkit, 2019).

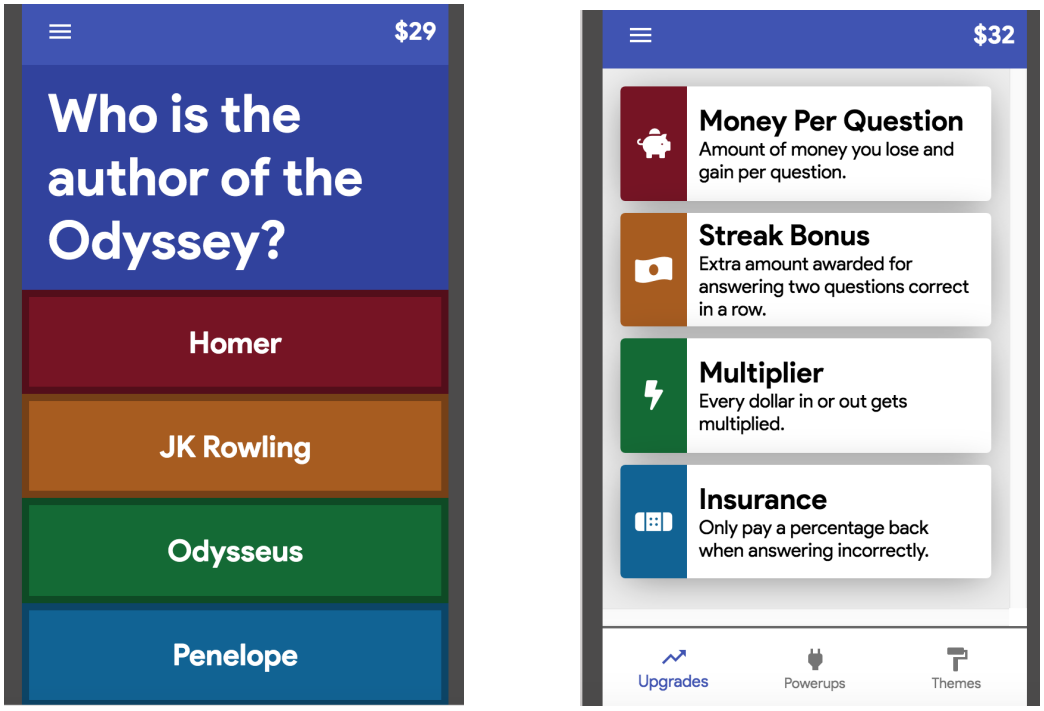


Figure 10: Sample Question and Shop Options for Players in Gimkit

Students are encouraged to be strategic and answer the questions, and questions are repeated to ensure mastery (Gimkit, 2019). Gimkit also asks students to interact with it as a game by offering upgrades, powerups, and themes that students can select at will. Teachers can choose whether students respond to multiple choice or short answer questions. Gimkit suggests using a game as a homework assignment that can be

automatically graded or assigning students a KitCollab, a kit based on questions that students submit (Gimkit, 2019). The program also generates a report after a playing period to identify topics that are challenging or students who need support (Gimkit, 2019).

Finally, the Perseids Project, the Alpheios Project, and the Perseus Digital Library have collaborated to provide their own fully coded treebank library based on the AP curriculum (The Perseids Project, 2019). Treebanks are collections of trees that reflect the grammatical structure of a short piece of text, generally a sentence. Students can select a piece of Latin text from the AP reading list and use the trees to dissect the Latin. The tree helps students to read and analyze the Latin using color coded words, labels, and sentence chunks. Figure 11 illustrates the detailed linguistic metadata that trees of individual sentences can provide learners (The Perseids Project, 2019). Students can zoom in and out of particular parts of the selection to isolate challenging spots or get a feel for sentence flow.

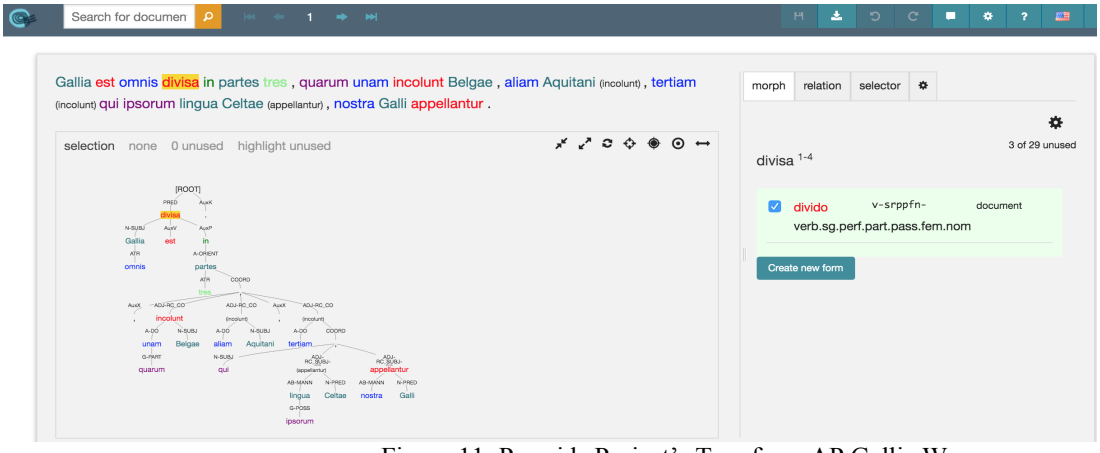


Figure 11: Perseids Project's Tree from AP Gallic War

Each word can be color-coded and organized in a word-tree for the viewer to analyze. The lines or branches between words show the relationship between words and the tags on top of each word tell students what its function in the sentence or clause is. Reading or creating treebanks may assist in developing an appreciation of sentence structure and style for more advanced Latin students. Grammatical trees give detailed information about each word in a Latin sentence so students can focus on small bits of Latin at a time. These tools assist in reading and comprehension, but also can be helpful in assessment. Teachers can assign texts for students to compile. Teachers may have students review completed trees to encourage students' comprehension of the link between the text and its structure. Treebanks may be most appropriate when combining a grammar-translation approach for students who respond well to visually associating grammatical terms with colors and diagrams.

Incorporating treebanking for high school Latin courses is a relatively new initiative. Although treebanks have largely been used in college classrooms and for academic research, user Robert Gorman has a Youtube tutorial devoted to utilizing treebanking assignments in basic Latin courses. The video illustrates the need for training in using this technology for both students and teachers in order to reap its benefits. Students can study the trees that have already been prepared by Tufts' Perseids Project. Teachers may choose to preview the treebanks in class before choosing to assign students to analyze others' trees, and eventually, they may ask students to create their own trees for a set of classroom sentences.

The Perseids Project helps teachers to set up their own class treebanks in the Arethusa annotation platform. Teachers looking to set up their own class treebanks are offered support with creating an account, accessing texts, personalizing materials, and grading by contacting Perseids staff. It would require a dedicated effort on the part of both teacher and student to understand how to use the platform before treebanking could be fully incorporated into the classroom, but the tools are helpful for those who do warm to them and staff is very responsive to teachers' questions. Even though the user interface attempts to give digestible amounts of Latin, trees can be overwhelming for some students either visually or in terms of the amount of information they provide. Other students may appreciate seeing the sentence diagrammed in a way that parses out Latin words. As with other commentaries, the specific tags (or textual interpretations) also are sometimes subject to debate. To address these issues, Gorman's tutorial provides a guide for teachers and students using the platform for the first time (Figure 12).

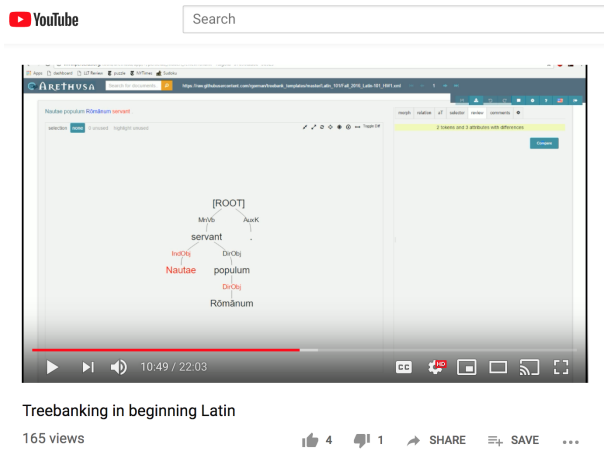


Figure 12: Robert Gorman's Youtube Tutorial on Treebanking in Beginning Latin

In this video, Gorman demonstrates the student view in Arethusa by making a tree of a short Latin sentence (*nautae populum Romanum servant)* which has been incorrectly coded (Gorman, 2016). The video illustrates how the Arethusa tool will show correct and incorrect answers to students under the "review" tab in real time: *nautae* and *Romanum* were erroneously coded in the sentence and they are presented in red (Gorman, 2016). Students code each word with a tag that labels and sorts words into diagrams centered around verbs. After students check their original tree, they have the opportunity to re-code the text until the review tab shows that the tree is correct by returning everything in all black text. Students take an active role in teaching each other by creating metadata about a short piece of Latin. This is a heavily grammatical approach that depends on the grammatical interpretation of the instructor who designs the original tree, but it does ask students to identify the function of each word in the sentence and encourages them to gain a stronger understanding of Latin's syntax.

The Perseids Project and Alpheios also have collaborated to form an open-data platform that facilitates classroom textual alignment of Latin and Greek texts. Textual alignment activities offer students another way of diagramming Latin text. They can work individually or in groups to coordinate individual Latin words with their translation. While treebanking helps students to parse words in Latin, textual alignments connect students directly to the translation of texts. Textual alignments are the digital descendants of linear translations and other translation publications that attempt to simultaneously present Latin text and translation such as those from the Loeb Classical Library. Textual alignments are available to be set up in the Alpheios platform with support from the

Perseids Project (The Alpheios Project, 2019). Textual alignment helps students understand that phrases with auxiliary words in English are often expressed more concisely in Latin. This may create a stronger understanding of the differences between Latin and English.

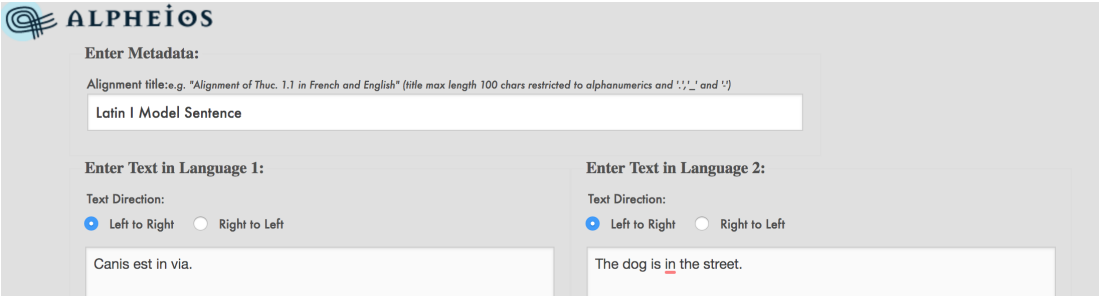


Figure 13: Entering text into Alpheios in both languages

Figure 13 illustrates how to enter English and Latin text into the two boxes on the Alpheios system. Students may copy-paste short sections of Latin in one box along with a translation in the second. Learners can prepare their own translations or teachers can provide them with a translation.

Figure 14 (on the following page) provides a view of a user highlighting a word and the English words that correspond to it. For instance, it comes as a surprise to many introductory level students that Latin does not have articles. In Figure 18, students have to highlight “the” and “dog” and attach them to “canis”. By aligning Latin text with its translation, students are challenged to account for every word. The process may encourage students to recognize the similarities and differences in vocabulary and syntax.

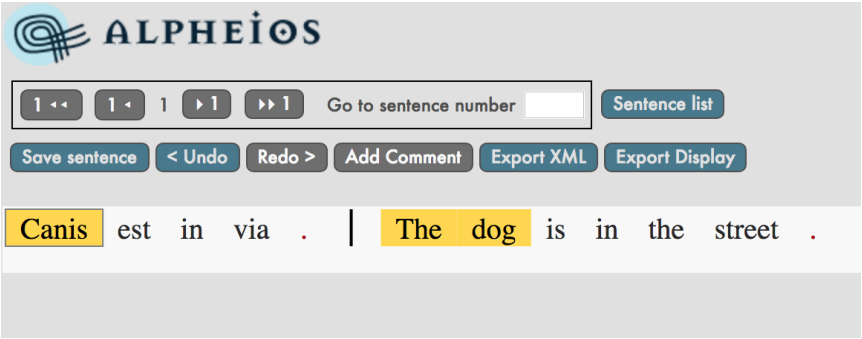


Figure 14: Aligning the text in Alpheios

Word-by-word, students link the text with its translation. Then, they can export their alignments and send them to instructors for review. While treebanking and textual alignment have largely been tools in university-level courses, they can be scaffolded by using shorter, easier chunks of Latin or by assigning work in groups for complex selections. Textual alignment is a modern extension of the grammar-translation technique that may not work for all students. The theory of comprehensible input suggests that learning isolated information about words (for instance, memorizing case endings) is not as powerful as acquiring language by using images, repetition, and storytelling: "We acquire by understanding language that contains structure beyond our current level of competence (i +1). This is done with the help of context or extra-linguistic information" (Krashen, 1982 p. 21). Treebanking and textual alignment tools can best be used to acquire language for lower-level students when they are supplemented with a narrative that provides enough context for students to infer the meaning of unknown words and phrases.

Krashen claims that "contextualization involves inventing a realistic context for the presentation of a grammatical rule or vocabulary item" (p. 69). In attempting to

provide greater context for students using these tools, teachers could assign different groups to create an alignment or tree of a short selection from a level-appropriate reading that the class has previously covered. After each group completes its chunk, students can go over the whole story together once more with a closer eye on tricky vocabulary or grammar. Teachers can provide the same text or scaffold by transitioning students from easier to more difficult versions of the same stories. Students creating text alignments and trees can clarify the meaning of new language introduced in class stories with greater difficulty by reflecting on their prior knowledge about earlier versions that were easier to understand. Practice sentences that are isolated may not have enough significant context for students to infer the meaning of new or unknown language, but a short story that repeats key words and follows a narrative structure provides more comprehensible clues that students need to build autonomy as readers.

The preceding list shows that, even though the grammar-translation instruction method is certainly not the most effective pedagogical strategy for all learners, instructors wishing to continue to incorporate aspects of it in their classrooms have a variety of options to facilitate student engagement and learning. Students with varying learning goals may work choose to work with these tools as review, homework, or in preparation of the AP exam. Vocabulary and grammar drills may be appropriate for some students, especially those looking for extra practice outside of readings. Next, we turn our attention to a pedagogical method that encourages greater learner autonomy and provides contextualized Latin via comprehensive readings.

Free Voluntary Reading (FVR) Materials

The following section discusses the merits of allowing students to select their own reading materials and then turn to some resources available online for readings in Latin. Krashen (2016) recommends the use of open-access blogs, especially amongst educators, that include short narratives and readings in the target language. Free Voluntary Reading (FVR) "is a form of comprehensible input delivered in a low-anxiety situation" that allows students to choose their own material in the target language for sustained silent reading time (Krashen 2003, p. 15). While FVR sometimes does not require any accountability on the part of students, it can be paired with an assignment that entails providing a reaction or summary of the reading. Some instructors have had students fill out reading charts, while others want students to simply have time alone with the target language.

The internet provides opportunities for reading and self-guided exploration. A cost-efficient way to provide a variety of level-appropriate reading materials in Latin is to use novellas and stories shared online by other qualified Latin teachers. The Latin Teacher Idea Exchange, a Latin teacher group on Facebook, features an Online Latin Resources page prepared in 2015 that includes links to teaching blogs, AP resources, online dictionaries, spoken Latin resources, teaching materials available online, and related Latin groups. Teachers also regularly post with their own materials to share or review, student products, and recent news articles pertaining to Latin or the classical world. In addition, an Airtable circulated since 2017 has over 300 teacher-prepared comprehensible texts in addition to teaching techniques, materials, and audio. Keith

Toda, of the blog *Todally Comprehensible Latin*, also includes his story library on his blog. Latin education specialist Justin Slocum Bailey hosts both a Latin Media page that includes texts, audio, and video in Latin as well as *Limen,* a portal for teachers with resources on theory and practice.

Beyond the readings provided by these resources, other e-readings in Latin may be found at a variety of websites including John Piazza's blog, which lists Latin novellas available for viewing online**.** Piazza has compiled novellas and short stories and helpfully sorts them by proficiency level which allows instructors to select level-appropriate texts. Instructors can also compile appropriate readings by topic. Some teachers provide copies of texts on a class website so that students may browse from a streamlined selection rather than having to sift through several links. Others also print some of these stories out for students who prefer to read in print. In giving students the opportunity to choose from a selection of resources on a variety of topics, a teacher may promote learner autonomy and self-efficacy. FVR activities allow students to read at their own pace, to determine the difficulty level of their own texts, and pick their own reading materials.

Among the many stories available online, readings suggested by Piazza include Operation Lapis by Project Arkhaia (readings based on Roman history), Legonium (a pairing of Legos and Latin), and Latin myth comics by Magda Van Tillburg hosted by Booxalive. Students may use the slider tool to click through pages of four different stories in Latin that have been transformed into graphic novels. Figure 15 shows images of Magda van Tillburg's published graphic novels on Booxalive. While the Latin is slightly more advanced in these texts, the images and translation notes will assist students

with troubles as they read on. The graphic novels include a Dutch translation that may be converted to English using browser settings.

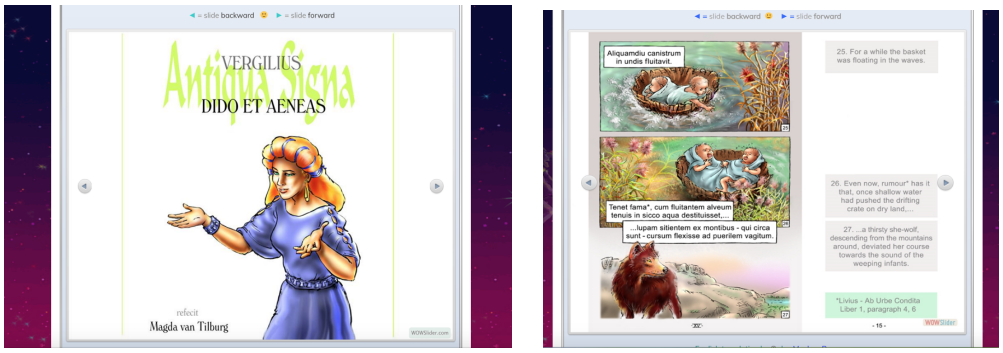


Figure 15: Graphic Novels based on Vergil's *Aeneid* and Livy's *Ab Urbe Condita*

Students may also choose to click through Vicipaedia, Wikipedia in Latin (Figure 16). This resource is an open-access collaboration that may feature some unintentional errors and fluctuate in its level of difficulty, but it does allow for students to pursue their interests individually. Students can be provided with the opportunity to select level-appropriate readings and create notes, corrections, and reactions to their texts. In reading as an editor, with the expectation of errors, students may attend to both the grammar and the content of the material. In being challenged with new vocabulary, students have the opportunity to look up words or to infer them from engaging, self-selected content.

Figure 16: Vicipaedia's Home screen

Another option for more advanced students could be perusing Loeb Online, Latin materials on the Perseus Project's website, or any of the texts available at the Latin Library. The former requires a subscription for full viewing capabilities, but the latter two options are available for free. The Perseus Project's texts include annotations, word glossing, and translations that can be used for scaffolding students at the intermediate level who want to practice reading 'real' Latin, but would likely not be suitable for beginner students without considerable assistance from an instructor. The Latin Library offers fewer resources for students, making it ideal for advanced and self-motivated learners.

As the preceding list shows, there are already a variety of sources available to facilitate student FVR online. One can expect this pool of resources to continue to grow and to that extent, can provide free materials for all students beginning to learn Latin that they can select based on their own interests and proficiency level. Students who read more and are engaged in their readings receive more input to interpret. Because students are offered readings in a variety of levels of difficulty and on different topics, instructors can personalize the reading experience. Learners who are not quite ready for more challenging works can select short stories with limited, repeated words such as the early readings offered by Legonium and Operation Lapis. Students who are ready for more of a challenge can seek out other materials or freely surf the Vicipaedia page to read about a topic of their choosing. The most ambitious and advanced students would do well to pursue texts with notes available on Dickinson's College Commentaries, especially in preparation of the Latin AP exam. The next section will continue its focus on building

student confidence and allowing for student choice using platforms that encourage composition.

Platforms for Composition

This section discusses platforms for composition including blogs, social media websites, and wikis. While reading and writing go hand-in-hand, this section focuses on these tools as opportunities for students to practice communicating in the target language. Composing online seems to feel safer for many students because they are protected behind a screen (as opposed to face-to-face communication, or even hand-written communication), and because they have the opportunity to quickly and easily edit their work when they find corrections. Students want to be understood in their communications and tend to spend more time and energy correcting their own writing than they would for a piece of writing that is not personally relevant. First, I will address how the use of blogs in an L2 classroom contributed to student confidence and the feeling of being a part of a supportive classroom community.

In a study of blogs used in a first-year university course in Italian, researchers discovered that they may promote authentic communication, activate shy or anxious students, and foster a sense of classroom community (Miceli et al., 2010, p. 339). In response to surveys about their classroom experience, students reported that they appreciated having the opportunity to think through their entries before they were posted (Miceli et al., 2010, p. 322). The extra processing time allowed them to correct their mistakes and thereby avoid social embarrassment. They also reported that easier posts

helped them feel confident and increased their sense of motivation in the classroom (Miceli et al., 2010, p. 333). As the authors summarizes:

> ...the personal style of communication that La mensa seemed to encourage played a strong community-building role. The students evidently appreciated being able to share their own experiences in relation to the subject matter, and they did this to a much greater extent than we had expected. Indeed, 44% of contributions to the teacher-initiated threads that we analysed included some recounting of personal stories and perspectives; that is, manifestations of connected voice… (Miceli et al., 2010, p. 338).

Technology that increases a sense of community in the classroom has a particular benefit for students because building community creates a greater sense of social and emotional awareness in the classroom. When students feel safe and emotionally-connected to their classmates and their course material, their motivation increases and they are more adept at engaging with the target language. They become more willing to take risks and the affective filter that Krashen warns can prevent the reception of input is lowered. High school Latin instructor Keith Toda (2014) discusses implementing Social Emotional Learning (SEL) into the classroom experience:

> Social Emotional Learning is the idea that students learn/acquire better and more quickly when they are emotionally engaged with each other in a low pressure atmosphere. Examples can be group projects, team-building exercises and even partner activities. Social Emotional Learning helps develop trust within the community of students. If students want to be in your class because of others there, then they will more likely to be engaged in your class.

By feeling that they are in a safe learning community, students develop greater motivation to receive and process input. It may not be ideal to have an open forum that anyone can comment on for the privacy and safety of students, so providing a safe and

intimate space for students is essential when creating an online discussion board. It is also important to ensure that all students' identities and personal information is protected regardless of what platform is used. Even so, the impact of the learning environment on the student cannot be ignored and before starting a blog or discussion board, instructors will have to select social media platforms that protect students' personal information.

While some schools provide instructors with online platforms such as BLEND or Canvas Instructure that provide teachers with the opportunity to set up their own private discussion boards, there are other options as well. EduBlogs by Wordpress offer both free and premium services that include password-protected pages, ad-safe content, and a mobile-friendly interface (EduBlogs, 2019). Piazza is a discussion forum generally aimed at universities, but available to high school teachers, that allows instructors to set up specific classes in which students may remain anonymous (Piazza, 2019). Weebly for Education also allows teachers to set up their own websites for their classes with the option to upgrade from a free account to gain more accounts for students to access (Weebly Inc, 2019). Google Classroom is also a popular platform for managing online materials for students (Google, 2019). The free service incorporates Google Drive documents and has settings that allow comments to be enabled. Students can choose from a selection of prompts. The collaborative website Padlet also has a variety of template boards to set up which students can comment on (Padlet, 2019).

Many teachers also have individual or group composition projects in which students are asked to write short stories. Flipsnack is a digital flipbook maker with free and premium services that students can use to produce stories online (Flipsnack, 2019.)

StoryJumper is free to use with the option to print and purchase stories written on its platform (StoryJumper Inc, 2019). Teachers can create a course, have students sign up, and view assignments through the course page. The interface allows students to create their own story pages and upload their own artwork. In addition to this, Storybird is a platform that provides a 30-day free trial and an annual membership to create their own digital books. The platform features adult illustrations that students can select and use to polish their stories. Finally, ToonDoo can also be used to create books and comics (Jambav Inc, 2012). Students can create their own texts for free by typing in speech bubbles and incorporating art already available on the website, but it is recommended for educators to use their membership-based service, ToonDooSpaces, which has more privacy settings and management tools.

Distance-learning Classics educator Laura Gibbs uses social networks, blogs, and wikis for her online Latin courses. Her blog, the Bestiaria Latina Blog on Blogspot.com, features memes, proverbs, and illustrated fables. Because it is a more condensed composition project than a story project, the meme featured in Figure 17 below demonstrates an excellent example for a beginner-level student project. In creating a meme, students are asked to produce a very short amount of written Latin. Since memes typically contain short words or phrases and some are not even full sentences, students would have the advantage of a creative project that gives them a culturally relevant task. Students can choose their images and decide to either translate a pre-existing meme or to create their own.

Figure 17: A meme from Best Latin on BlogSpot

According to the American Council of Teaching Foreign Languages (ACTFL) proficiency scale, novices in writing language are able to "reproduce practiced materials" such as key words, high-frequency phrases, and short sentences (ACTFL, 2012, p. 14). A meme project provides opportunities for students to compose their own meme and also for others to see the finished product. Because memes are typically one or a series of a few short images with a caption, students who read the memes will have the benefit of looking at a short chunk of Latin in context. Words that are not immediately recognized may be inferred using context clues, and the input would ideally feel more personal and relevant to students because they produce their own materials and get to see what their peers produce. Teachers can collect well-produced examples for other students to read and review.

A blended learning approach can provide digital natives with opportunities in the classroom to feel ownership over their learning and apply their knowledge in a variety of ways. Social networks that allow for commenting and extra studying materials have been

effective in Reinhard's study of learning and social networking tools. Reinhard (2009) suggests that using social networking educational tools to communicate with students in-and-out of Latin online has the benefit of allowing students to feel ownership in the course:

> The social networks you create empower your students to use the technological tools that they are familiar with in order to learn old languages in new ways. Teachers who opt to use Web 2.0 tools as part of the class experience do require their students to post content to the site. If teachers place homework assignments and news online, students will be obligated to visit the site anyway. As many courses have writing requirements set by the state, district, or school, you can use online discussions and blogging to fulfill that requirement. And once students learn that they can upload videos and fun pictures that they find, and can actively participate in discussions, they may forget that site participation is required and will instead spend time there on their own because it is fun and allows them to express themselves. (p. 27).

Latin instructors have already begun to experiment with providing online readings and activities for students. For instance, high school Latin teacher Bob Patrick uses blogs and, more recently, private social networks for his AP Latin classes, too.[5] Students switch each week and blog as a particular character in that character's voice from a reading. This gives students the opportunity to analyze readings from different perspectives.

I have addressed the relationship between writing and classroom community, especially in a digital space that gives students the opportunity to communicate their ideas in a way that can be edited. A classroom website that provides tools for composition may help them to compose independently. When students are encouraged to compose interesting and relevant material in the target language, they show greater desire

[5] See, e.g. http://www.carminacatulli.blogspot.com and http://latinatironbus.blogspot.com .

to interact with the language and take more care in producing coherent language. In lower levels, they may need writing samples, highly structured prompts, or notes (provided by the teacher or student-generated) that include selected words, phrases, and short sentences that students can build into their own writing. Intermediate and advanced students can be transitioned to longer and more independent writing projects. Students can participate in class blogs or discussion boards to gain a greater sense of community within the class. As a creative project, they can compose their own stories, comics, or memes in Latin. They can peer-edit their work, which can be saved and preserved as FVR materials. Because students tend to correct written materials that they feel are relevant and interesting, they take better care to edit their work and engage with the language's grammatical rules in a significant, contextualized manner.

The platforms mentioned above are some of the spaces online in which students can produce and share their work. So far, I have focused on the benefits of tools that are available for interacting with Latin by reading and writing it. However, a huge amount of comprehensible input that we receive when acquiring any language takes place in verbal form. High frequency language is emulated in speech before learners transition into composing their own sentences orally. I now turn to online tools that can be used to help students practice speaking and listening at their own pace.

Listening and Audio-Visual Tools

Latin pedagogy specialist Justin Slocum Bailey uses digital video/audio recordings in Latin to provide input. Recordings of the teacher or student reciting Latin can help students to internalize elements of language such as poetic meter, flow, and

pronunciation. Speaking skills, which "emerge significantly later than listening skills," can also be encouraged by normalizing the flow of conversation with different sources of oral input available online (Krashen, p. 7). For instance, Bailey has launched the Latin Listening Project on his website, Indwelling Language, which features a group of Latin speakers responding to questions about their lives in the target language that can serve as a model of speech. These videos also include the closed captions with Latin subtitles. Bailey writes:

> Learners of Latin, especially novice and intermediate learners, are faced with the problem that much of the Latin content out there is difficult to access or understand. It's especially hard to find resources well suited to building proficiency in any of the communicative modes other than Interpretive Reading. This is unfortunate, both because many learners of Latin want to build proficiency in other modes and because building proficiency in other modes contributes a great deal to proficiency in reading (Indwelling Language, LLC, 2019).

The American Council on the Teaching of Foreign Languages (ACTFL) outlines three main modes of communication: interpretive, communicative, and presentational (ACTFL, 2019). The majority of Latin courses still focus on interpretive reading as a singular goal, and many authentic texts are difficult to scaffold for novice and intermediate-low students. These materials provide students with an opportunity to engage with the language by interpreting Latin presented in audio and video formats. For instance, Bailey includes a 43-second video responding to the question, "*Esne peritus saltandi?"* ("Are you good at dancing?") (Indwelling Language, LLC, 2019). These videos can be viewed and followed up with a short, repetitive discussion in class that

involves as many students responding to the question as possible and become a launching point for in-class discussion.

Classroom discussions in Latin will provide invaluable practice for solidifying structures by absorbing Latin in oral/aural contexts. However, Krashen (1982) warns that different learners will have different needs over time when they begin to speak the target language:

> The best way, and perhaps the only way, to teach speaking, according to this view, is simply to provide comprehensible input. Early speech will come when the acquirer feels "ready"; this state of readiness arrives at somewhat different times for different people, however. Early speech, moreover, is typically not grammatically accurate. Accuracy develops over time as the acquirer hears and understands more input. (Krashen, p. 22).

Because spoken language can take students time to absorb, Krashen recommends using oral language in low-anxiety situations that contain messages of high interest to learners (p. 7). Students will slowly produce speech in time. Krashen argues that "improvement comes from supplying communicative and comprehensible input, and not from forcing and correcting production" and encourages teachers to be careful about focusing too much on correcting students when they begin composing speech in the target language (p. 7).

One project that may reduce anxiety for some students and increase motivation for speaking is a song project. Students learning another classical language, Ancient Greek, through song demonstrated such engagement and the desire to compose: "The students themselves were eager to produce their own songs, and among their efforts is the utterly charming and eminently singable" (Irbie-Massie, 2009, p. 40). Irbie-Massie

describes three different purposes that songs played in the classroom: to introduce grammar, to review grammar and vocabulary, and to give students practice in composing them (Irbie-Massie, 2009, p. 35). Some Latin teachers use songs in English that help students to memorize endings, but songs in the target language that feature a particular grammatical component will provide contextualized language that is more comprehensible. Latin karaoke sessions can provide contextualized language when selected songs are current or highly popular and students can work from previously held knowledge. Because many students already know song lyrics in English, they have an advantage in understanding the words in its Latin version. The introduction of songs engages students often by building a bridge between modern and ancient culture.

Latin translations of popular songs are also available from the Paideia Institute's *In Media Res* which updates its karaoke materials regularly. YouTube user Ellie Arnold's Classical Latin Playlist includes videos with Latin lyrics and English translations available for Latin covers such as 'Mundus Mirabilis' (*What a Wonderful World*). The *Quomodo Dicitur?* Podcast is a "weekly Latin podcast about anything" and features subjects ranging from summer plans to music and books that may be more appropriate for intermediate and advanced students, but can selectively be used in novice-level classrooms (Grissom, Slanga, Bailey, 2019). Krashen (2016) suggests using videos that include speakers of the target language discussing topics that are of interest to students. Students and instructors can record short videos of themselves speaking or singing Latin by reciting poetry, performing skits, or delivering monologues.

Magister Craft provides videos spoken in slow, novice-to-intermediate Latin with captions in English (Figure 18). Students can watch the videos and answer comprehension questions which would ideally also be posed in Latin. Magister Craft's videos cover cultural topics in Latin such as the Roman House, mythology, and Roman religious festivals. Students can pick their own videos and present on their findings, or instructors can preview a single video and talk about its contents in a class discussion, ideally drawing on language sampled in the video.

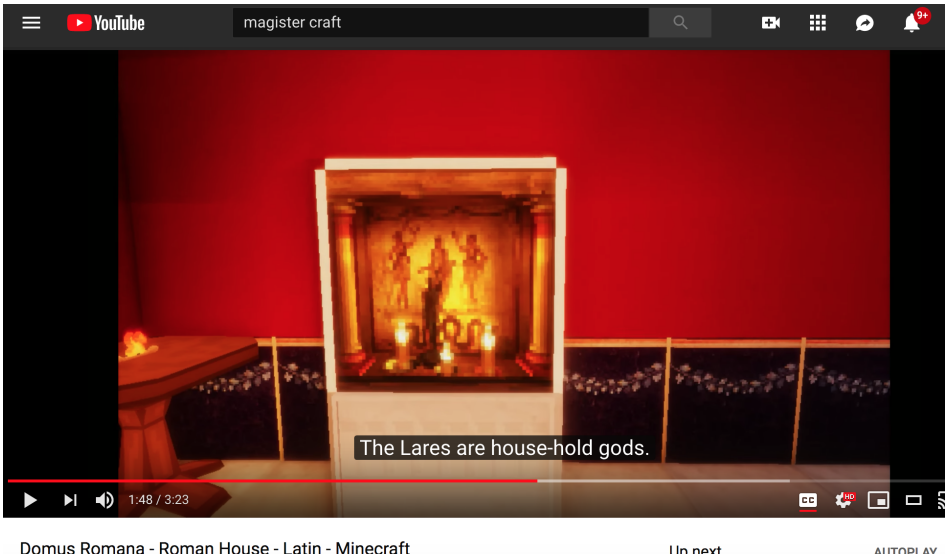


Figure 18: Magister Craft's Domus Romana

There are a variety of applications for class video projects such as skits, recitations, and cultural exploration presentations. Class members could upload video/audio recordings of themselves talking about a topic of their choice in Latin to a class website. The project can be altered so that students can recite Latin that has already been written or try to compose their own Latin. If there is a peer-review portion, students can work together in groups to check for grammar and fluidity. Students can recreate the

video with corrections or add corrections in comments or closed captions. Many instructors still recommend using imperfect samples at beginner levels while students are still developing an understanding of the language's syntax. Students who are novices on ACTFL's proficiency scale in reading or listening may not recognize errors in other student samples whereas other students may recognize the error (ACTFL, 2012). At that point, it may be fruitful to have a conversation as a class about grammar within the context of a story.

Teachers can also "clone themselves" by uploading videos of themselves describing class topics that may regularly need to be reviewed by students at different times (Anderson, 2017). Students with frequently asked questions can be referred to the tutorial video to create greater learning independence and provide an immediately-available resource. Cloning videos can also include teachers recording themselves dictating stories that students can write out, translate, or illustrate as they hear.

Movie talks, originated by Dr. Ashley Hastings, are classroom discussions held in the target language that begin by showing a short clip or video to students (Piazza, 2019). Piazza describes movie talk as "the strategic use of short video clips" that "facilitate classroom communication in the target language" (Piazza, 2019). Students become engaged in a short video that incorporates the target language and the viewing or viewings are supplemented with structured dialogue and follow-up activities. In most instances, the video should be in the target language, but if there are no videos available, clips or GIFs (Graphics Interchange Format) that include no or minimal dialogue in another language are appropriate. The instructor narrates the story in the target language

as the story plays. All clips should be engaging, i.e., funny, interesting, or relevant to the students. These clips can be supplemented with a short vocabulary list or label that help them begin to generate sentences about the viewed content in writing or discussion.

John Piazza has a list of movie talk resources for Latin teachers (Piazza, 2019). In addition to a variety of resources that include instructions and recommendations for how to incorporate movie talk into a Latin classroom, Piazza includes examples of other instructors using movie talks in Latin and other languages. Movietalk activities tend to be designed around several class periods that involve several viewings and re-tellings of the story and tend to culminate in students presenting the story or producing something such as writing an alternative ending in Latin.

The tools that were listed above are not an exhaustive list of audio/video materials available online that pertain to Latin, but this summary does seek to represent current trends in Latin pedagogy attempting to provide a more accessible classroom. A final component of engagement, beyond providing engaging stories or materials that are in the target language, is developing an interest in the long history and shifting culture of the speakers of this language. In doing so, students may gain insight into how these cultures have impacted our own and shape their own perceptions about the value of their Latin education. The final section addresses digital tools that do not incorporate Latin language so much as they do history and culture that are ideal for inquiry-based research projects.

Platforms for Cultural Exploration

This section examines online resources that can be used to help students gain a larger understanding of the ancient history and its influence over the modern world. I will

first discuss podcasts that range in a variety of topics that allow students to study aspects of culture and history that are most interesting to them. Although these resources do not contain much Latin, they are still avenues of exploring the Latin language and the history of those who spoke it. Building innate interest in the communities that spoke Latin will increase a student's innate interest in learning more about the target language. Resources that touch on both the language and culture have been mentioned already, but this section will focus on a few digital resources that exclusively or almost exclusively are meant to teach about the cultures, histories, and religions of people who have spoken Latin from antiquity onwards.

The Forum Romanum provides a digital library of Latin literature, timelines and articles on Roman history, a section dedicated to the private lives of the Romans, and an outline of Graeco-Roman surgical instruments. The "Pod Erat Demonstrandum" Podcasts created by advanced students in Ian Lockey's Latin classes are available on Soundcloud. Latin III-V students interview professors and graduate students on topics such as the future of Classics, the late Roman economy, and polychromy in the ancient world. These podcasts are accessible tools that have been inspired by the Itinera Podcast (Lepisto, 2019). The History of Rome Podcast is a collection of discussions that covers the history of Rome from its early kings to the collapse of the Roman Empire (Duncan, 2013). Students can pick a topic and write a short report summarizing or reflecting on the information.

Digital museum tours can allow students the opportunity to interact with materials associated with these communities. For instance, the British Museum Online collaborated

with Google to create the Museum of the World, which allows students to scroll through a grid on a timeline and examine various artifacts. Students can navigate through the resource to get a sense of connections between cultures over time. The website allows them to see other items collected from the same time period across the globe and sorts the items into five thematic categories: arts and design, living and dying, power and identity, religion and belief, and trade and conflict. Figure 19 demonstrates an item from the "Power and Identity" category, a handwritten tablet from Vindolanda displaying a line from Virgil (The British Museum, 2019).

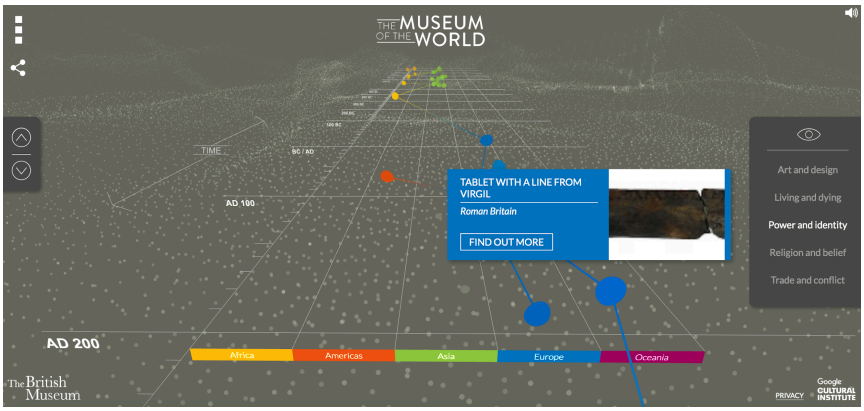


Figure 19: Tablet with a Line from Virgil on The Museum of the World

Just as The Museum of the World seeks to show a selection of historical items from a variety of locations sorted along a timeline to give a broader context of world history, Google Earth also features collections that highlight historical and cultural events across the globe. It features Voyager Stories, collected slide shows that show Google Earth's view of a selection of sites. Figures 20 and 21 demonstrate two Voyager Stories: the Volatile Volcanoes includes a 360-degree view of Mount Vesuvius and a collection

of Myths and Legends Around the World connects the story of Romulus and Remus to a tour around the Palatine Hill (Google Earth, 2019).

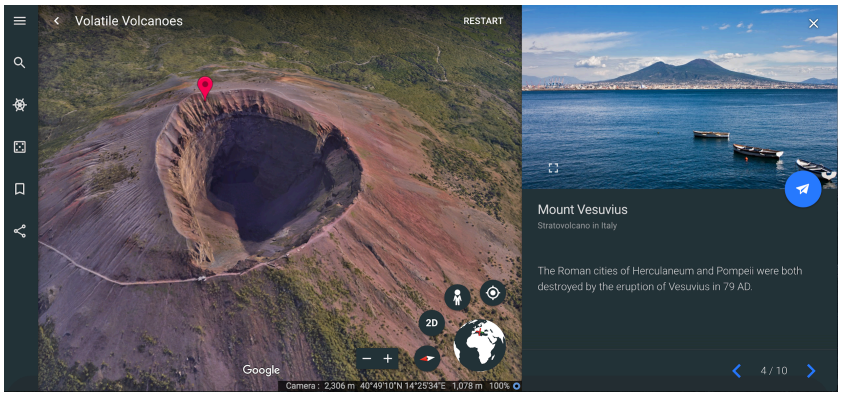


Figure 20: Google Earth's View of Mount Vesuvius[6]

Students can develop a clearer picture of the devastating outcome of the eruption of Mount Vesuvius in 79 CE by examining the crater that still exists today (Figure 20).

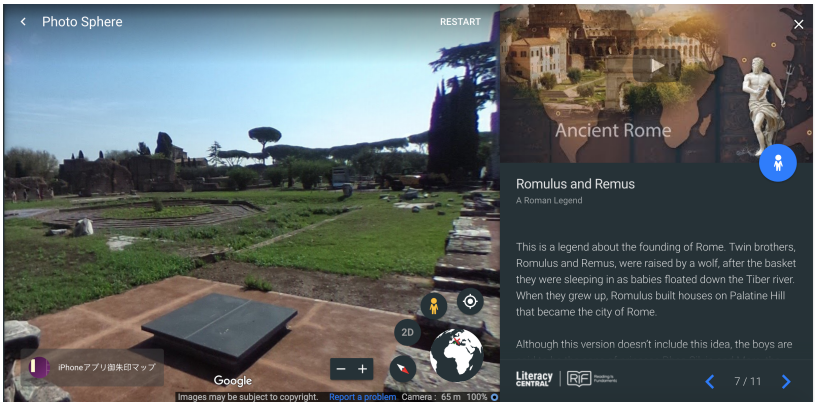


Figure 21: Google Earth's Entry on Romulus and Remus[7]

[6] See: https://earth.google.com/web/@40.82111303,14.42740612,984.78014008a,1884.90936774d,35y,99.63582658h,45.50037585t,0r/data=CjASLhIgNGFiYmQ4OWNiNDUwMTFlNzgwYzQ1ZmYzYTA0NDEwZDgiCmdjc19saXN0XzQ

[7] See https://earth.google.com/web/@0,-0.16452555,0a,22251752.77375655d,35y,0h,0t,0r/data=CjESLxIgM2Y0NzQ2NDc0MWI1MTFlOGIyZTJkMzdkYTU5MmE0MmEiC3ZveV9wb2ludF83IjAKLEFGMVFpcE9pRV92YlVMZmNyN2xoaTB5LWxTcDlPQ1dkNU55YjN0ZXJENE5qEAU

Learners can review the popular myth of Romulus and Remus while examining images of significant areas in Rome in Figure 21. Virtual tours connect Latin to a place and time more concretely and give students the opportunity to visualize the ancient world. Other select locations are available for virtual tours such as AirPano's tour of the inside of the Colosseum (Figure 22) and 360Cities' tour of the archaeological site at Pompeii (Figure 23). Instructors can ask students to investigate these areas and possibly develop questions or inferences about ancient culture based on the images provided. Students can also work in groups to visit a given location and present their findings. If groups are given several different places, they can track differences and similarities between the locations.

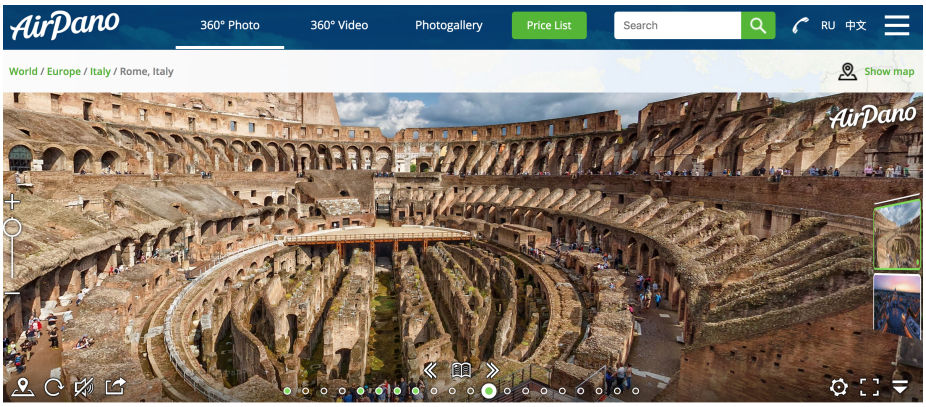


Figure 22: The Colosseum Interior from AirPano[8]

Digital tours give students an opportunity to explore significant spaces around the world from the classroom. Students can develop a broader sense of ancient history and culture when they can interact with different spaces. These activities can also drive home that Latin speakers existed in a variety of spaces across a long period of time.

[8] See https://www.airpano.com/360photo/Rome-Italy/

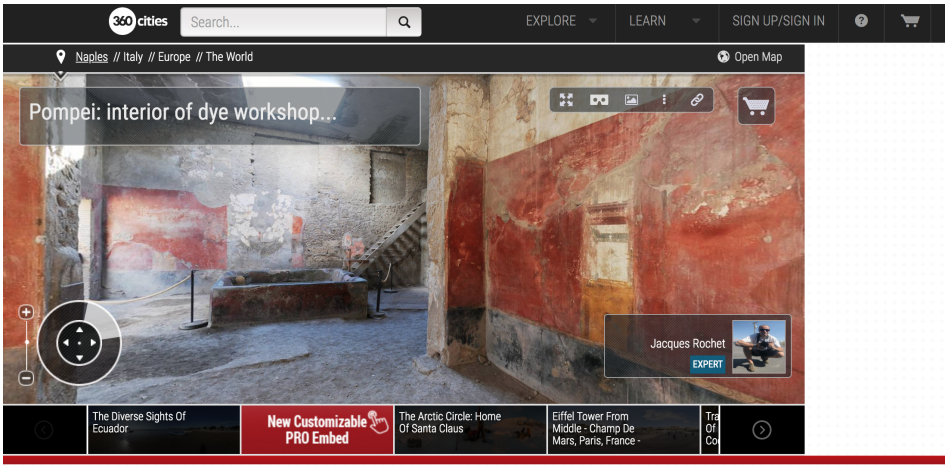


Figure 23: Interior of a Dye Workshop in Pompeii from 360Cities[9]

Figure 23 depicts the colorful interior of a dye workshop in Pompeii, which contrasts starkly with the expansive Flavian Colosseum in Rome (Figure 22). Students can gain a greater understanding of the lifestyles of Romans by seeing their cultural products first hand.

Another topic of cultural exploration that generates great interest in students is mythology. Britannica Students looking to gain information summarizing a figure in mythology quickly will often default to Wikipedia's profiles, but a more helpful resource for learning about mythology in English is Theoi (Theoi Project, 2017). Theoi pairs entries on mythological figures containing summaries of significant myths corresponding with images from Ancient Greek and Roman art and translations of relevant passages in classical literature. Students often enjoy comparing the depiction of mythological figures in antiquity with images that are seen in popular culture. Figure 24 features the profile of

[9] See https://www.360cities.net/image/pompei-interior-of-dye-workshop-naples

Kerberos on Theoi, which shows name variations, provides a summary table, includes an authentic image, and has a short overview describing the mythological figure.

Figure 24: Kerberos Entry from Theoi

Many student art projects involve modernizing mythological figures, drawing their portraits, or writing from their perspectives. Students can also be encouraged to compose their own simplified Latin versions of myths they discover earlier in the year. In producing their own retellings of ancient myths, students can participate in a long culture of storytelling. They can choose how to adapt ancient myths for modern audiences, select which versions they like or believe the most, and make decisions about the representation of those narratives.

Two main goals of incorporating ancient history and culture into a language class are to provide insight into the language's users and generate interest in engaging with the language. Cultural exploration tools such as podcasts give students the opportunity to select from a broad range of topics in order to learn more about the ancient world. Virtual tours can act as resources that help them to see how ancient people lived and explore

some of those spaces from their computers. Digital entries about mythological figures can inspire them to learn more about ancient religion, storytelling, and art-- and even join in that tradition on their own terms.

Concluding Thoughts

Despite the necessity of incorporating technology in coursework, the human component of the classroom has great impact on how students view and use any of these materials. Whether it is by taking the time to teach and review how to use the tools (as is necessary for many online dictionaries and commentaries) or by setting an atmosphere in a classroom that focuses on respect and communication, teachers have a great deal of control over how they introduce and apply the various tools that are available. The Internet continues to be a fast-paced platform with tools such as these coming in and out of use. The items included are intended to assist in providing resources and activity ideas for instructors of Latin, especially those desiring to incorporate comprehensible input in their classes.

These items are suggestions that could possibly be incorporated into a menu from which students can select specific items in order to show their effort and mastery of information in a more personalized manner. The tools previously discussed offer students the opportunity to interact with ancient history, language, and culture in a variety of ways to suit their different learning interests and needs. Many of the suggested activities allow them to select materials based on their learning preferences, devise their own research questions, and create their own reflective products. While some may enjoy listening to podcasts or watching a video story in Latin, others may have more interest in reading or

writing Latin. By blending a variety of these tools into the classroom, students have a greater variety of activities from which to choose. This varies the means of representing the material, engaging with key topics, and expressing students' knowledge.

In reflecting upon trends in Second Language Acquisition research in Chapter one, I observed that Stephen Krashen's theory of Comprehensible Input is most influential on best practices in second language classrooms today. I presented the different components of learning Latin and discussed how phonological processing plays a role in Latin learning. I proposed a Universally Designed Latin class that seeks to anticipate the needs of all learners such as those with poor phonological processing by providing support proactively and designing a flexible curriculum.

In Chapter two, I discussed the question of how Latin teachers should respond to declining enrollment in Latin and best serve the community. In light of its elitist history, students coming into a Latin class will have varying learning goals, motivations, and feelings about their identities as Latin students. In order to re-define what it means to teach and learn Latin, teachers must acknowledge the failures of the grammar-translation approach. I presented a new form of inequity that faces students of the twenty-first century: the digital divide. Blending technology into the classroom is one way to respond to the need for change both in the Latin classroom and within the broader educational system. I discussed the significance of the instructor's confident use of technology in the classroom to help develop students' digital literacy and skills.

Finally, I have provided a brief catalogue of tools online with a goal of providing a variety of resources that allow teachers to design activities that optimize student choice.

I have presented activities that could be adopted by instructors who seek to use the theory of Comprehensible Input; I have discussed how other tools that better serve a grammar-translation approach may still be utilized as resources. In addition to addressing tools that involve reading, writing, speaking, and listening, I have outlined resources for cultural exploration.

This list seeks to inspire and guide Latin teachers interested in re-centering the Latin classroom around students' autonomy by incorporating resources that are conducive to comprehensible input. An inclusive classroom that makes material accessible and engaging is the most likely to reach underserved populations. Latin's elitist reputation may eventually be overcome by educators increasing students' learning outcomes and inviting more students into a classroom that celebrates differences and diversity. Enrollment numbers may increase if Latin meaningfully enriches the lives of those who elect to study it and if Latin is able to offer more to a greater variety of students. Latin classes must reject their history of being designed for a select few and adopt a pedagogy that attempts to serve the greatest number of students possible.

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